REPORT RESUMES

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ANALYSIS OF PATTERNS OF STUDENT TEACHING.
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DESCRIPTORS- *RESEARCH PROJECTS, *RESEARCH METHODOLOGY, *STUDENT TEACHERS, PROFESSIONAL TRAINING, *TRAINING TECHNIQUES, *TEACHER EDUCATION, TEACHING TECHNIQUES,

RESEARCH WAS UNDERTAKEN WITH THE OBJECTIVE OF GAINING A PRELIMINARY UNDERSTANDING OF SOME OF THE DIFFERENT KINDS OF CONSEQUENCES THAT OCCUR IN THE EDUCATION OF TEACHERS AS A RESULT OF DIFFERENT PATTERNS IN THE ORGANIZATION OF THE STUDENT TEACHING EXPERIENCE. THIS REPORT IS AN EFFORT TO DESCRIBE AN ON-GOING PATTERN AND TO DEVELOP MODELS OF ITS FUNCTIONING. THE METHODOLOGY KNOWN AS PARTICIPANT OBSERVATION WAS UTILIZED. EACH STUDENT TEACHER WHO PARTICIPATED PREPARED A FIELD NOTEBOOK IN WHICH HE BRIEFLY RECORDED EACH DAY'S ACTIVITIES ALONG WITH ANY REACTIONS TO THE VARIOUS SITUATIONS IN WHICH HE FOUND HIMSELF. THE INVESTIGATORS SPENT 20 WEEKS DURING A FALL SEMESTER OBSERVING THE 12 APPRENTICE TEACHERS IN 15 ELEMENTARY SCHOOLS. THE RESULTS OF THE STUDY ARE ORGANIZED INTO FOUR SECTIONS AND NINE CHAPTERS. CHAPTER ONE STATES BRIEFLY THE NATURE AND APPROACH TO THE PROBLEM. CHAPTERS TWO, THREE, AND FOUR DESCRIBE THE APPRENTICESHIP PROGRAM AT CITY TEACHER'S COLLEGE. CHAPTER FIVE DEALS WITH SOME OF THE LITERATURE CONCERNING VIEWS ON TEACHER TRAINING. CHAPTERS SIX AND SEVEN ATTEMPT TO DEVELOP TWO MODELS OF TEACHING--(1) AS INQUIRY, AND (2) THE PSYCHOMOTOR ANALOGY. CHAPTER 8 DEALS WITH OCCUPATIONAL SPECIALIZATION, WHILE CHAPTER NINE OFFERS AN INTERPRETATION OF FUNCTIONAL ANALYSIS. NOTES ON THE METHODOLOGY OF THE STUDY AND THE ANALYSIS OF THE FIELD NOTES ARE APPENDED. (AUTHOR/IM)

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Analysis of Patterns of Student Teaching

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Preface

Obviously, in a project such as this we have a major indebtedness to a number of organizations and individuals. Our twelve apprentices most graciously and intimately opened their lives and experiences to us. They talked to us about their problems, apprehensions and disappointments as well as their joys and satisfactions. Their courage and aid were indispensable. While they must remain anonymous to the field of professional education, we retain a warm personal feeling for them as individuals.

Big City Public Schools and its affiliate City Teachers College gave us support in numerous ways and gave us total freedom to observe and record. We hope our descriptions are accurate and clear and our interpretations reasonable. We wish to express our gratitude to the many unnamed individuals who made this research possible.

Paul Kleine, who has assisted us so well in so many activities over the last few years, continued his careful and insightful work during our data collection.

The Graduate Institute of Education at Washington University remains a fine place to inquire about important educational issues. Our faculty colleagues, as usual, listened and reacted as we tried to make sense of our data. Our three secretaries, Dorothy Clark, Pat Carpenter and Vera Costain, stayed with us throughout the many demanding parts of a participant observer study, which few outsiders understand.

Finally, financial support from the Bureau of Research. U.S. Office of Education for project #5-0284, aided us immeasurably. This document represents our final report to the Bureau. A sabbatical leave from Washington University, and Senior Research Associate appointment with CEMREL for one of the investigators (Smith) aided us materially also.

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Chapter One

The Nature of the Question

The dynamics of education in a period of unparalleled foment are complex and difficult to grasp in their entirety. Admidst the range of critics raising charges and counter-charges, the self-proclaimed messiahs, with dramatic new alternatives, the rush to take advantage of the wide-ranging federal programs and funds, the plethora of new curriculum materials being developed by national committees, and the pressures to use new organizational patterns and technologies, the day-to-day teaching in self-contained classrooms laboriously and inexorably grinds along in traditional fashion and receives scant attention. It seems as though the professional educator had ignored or not heard Merton's earlier concern for latent as well as manifest functions.

> Any attempt to eliminate an existing social structure without providing adequate alternative structures for fulfilling the functions previously fulfilled by the abolished organization is doomed to failure . . . To seek social change, without due recognition of the manifest and latent functions performed by the social organization undergoing change is to indulge in social ritual rather than social engineering. (1957, p. 81.)

Consequently, amongst all the attention being paid to problems of change, innovation and reform it appears worthwhile to take time to observe carefully some of the current, mundane, day-to-day practices and procedures in professional education and to think analytically, yet abstractly, about the implications[1] of these programs. This has been our goal. Initially we stated it this way:

> The objective of this study is to gain a preliminary understanding of some of the different kinds of consequences that occur in the education of teachers as a result of different patterns in the organization of the student teaching experience.
>
> City Teachers College has an apprentice teaching program which involves elementary teacher trainees in a series of two week programs. Each student participates for two weeks in each grade level (Kindergarten through 8th) during the course of the semester. City University provides its student teachers with a sixteen week program in which each student spends the entire semester with one teacher at one grade level. Both programs have been in operation for a number of years. We propose to describe carefully these ongoing institutions and develop models

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[1] This initial statement is from the draft of our research proposal submitted to the U. S. Office of Education and funded as 5-8204

of their functioning. In a later study, as an outgrowth of our model building, we will devise controlled field experiments to verify hypotheses arising from the most significant concepts.

Theoretically, the study may be viewed as a problem in functional analysis. Our attempt will be to take Merton's (1957) general position and utilize it in the study of this important educational problem.

> . . .just as the same item may have multiple functions, so may the same function be diversely fulfilled by alternative items. . .there is a range of variation in the structures which fulfill the function in question. . .(This is) the concept of functional *alternatives, equivalents or substitutes*. (1957, pp 33-34)

In short, the research was undertaken with the objective of gaining a preliminary understanding of some of the different kinds of consequences that occur in the education of teachers as a result of different patterns in the organization of the student teaching experience. The present report is an effort to describe carefully an ongoing pattern and to develop models of its functioning.

Our approach utilized the methodology known as participant observation, or the anthropological field study approach. Malinowski's "Introduction" to the *Argonauts of the Western Pacific* (1922), Whyte's supplement to *Street Corner Society* (1955), Becker's "Inference and Proof in Participant Observation," *Am. Soc. Rev.* (1958), illustrate the general literature. In particular, each student teacher prepared a field notebook in which he briefly recorded each day's activities along with any reactions to the various situations in which he found himself. The requirement for the notebooks were 1) at least one page per day, 2) an account of the most important thing they learned, 3) the most interesting event of the day, and 4) the most puzzling event of the day. These learnings and events pertained to any phase of the experience--with the curriculum, children, staff, community, and so forth. The participant observers kept a field notebook of observations and focused interviews with individuals and groups of student teachers and cooperating teachers. The investigators observed and interviewed each of the teacher trainees at least once in each of the classroom settings. In the observing, no attempt at quantification was sought; rather, notes were made to sharpen questions for interviews and for anlayzing the logs and to provide a basis for careful description and interpretation.

We worked with 12 apprentices selected by the supervisor in charge of apprentices at City Teachers College. The basic criteria agreed upon were as follows: (1) there should be both male and female apprentices; (2) there should be both male and female Negro and white apprentices; (3) each of the elementary districts should be included; (4) both middle and lower socio-economic schools should be included; (5) a minimum number of schools should be used; and (6) variations in expected competence should occur. We had contact with six of the schools for a period of ten weeks and nine of the schools for the full twenty-week period. Each of the several elementary districts were represented; middle and lower socio-economic schools were represented. The distribution of apprentices was as follows: male Negro--2; female Negro--3; male white--2; female white--5. The twelve apprentices appear to represent a reliable cross-section of the total student teaching group regarding ability, marital status, age, and presence or absence of outside employment. We have indicated names and supervisors in Figure 1.1.

Insert Figure 1.1 about here

The principal investigators and a graduate research assistant (Paul Kleine) spent twenty weeks during a fall semester observing the twelve apprentice teachers (four each) in fifteen elementary schools (K-8). Something over two-hundred visits were made to observe the apprentices teach and to have interviews with them, the principals, and cooperating teachers.

The results of the study have been organized into four sections and nine chapters. Chapter One states briefly the nature and approach to the problem. Chapters Two, Three, and Four comprise Unit Two, "The apprenticeship program at City Teachers College." The materials are heavily descriptive and accent the manifest functions in Chapter Two, latent dimensions of the program in Chapter Three and an analysis of learning outcomes in Chapter Four.

Unit Three discusses several interpretive models of student teaching. In Chapter Five we look at the rather sparse literature on student teaching; in Chapter Six we propose a model of teaching as inquiry; and in Chapter Seven we attempt to look at teacher training analogically, from the viewpoint of psychomotor skills learning. Finally we put our data in a comparative context, that of occupational socialization in Chapter Eight. The final chapter, and unit, is a concluding one concerning the role of functional analysis in education. Our appendices attempt to continue our analysis of participant observation as a research technique.

In short, our aspirations have been to provide a careful description of an approach to training teachers. We have not sought to "evaluate" the program in the more limited sense of that term. Our interpretations have been of the order of bringing several perspectives to bear on the hard data generated by our observations.

Apprentices

1. Tom Nunn
2. Jean Miller
3. Susan Lawrence
4. Greg Jennings
5. Bruce Hull
6. Elsie Gordon
7. Deborah Frank
8. Roger Evans
9. Judy Downes
10. Linda Charles
11. Pamela Baker
12. Edith Abbott

Supervisors

1. Miss Perkins
2. Miss Revelle

Figure 1.1 The apprentices and supervisors in the study.

Chapter Two

Organizational Structure and Process

FORMAL DOCTRINE

City Teachers College is an integral part of Big City Public Schools and prepares teachers for positions in the elementary grades (K-8). About three-hundred prospective elementary teachers complete the four year program each year. The basic structure of the program is included in two mimeographed bulletins. The first, entitled The Professional Laboratory Experience, deals generally with the total sequence of professional courses and experiences while the second deals directly and in detail with the apprenticeship and is entitled Apprentice Teaching Program. These bulletins are received by all students (at appropriate times) and by the principals in the schools where the students have their laboratory experiences. Three additional documents are included in the copy for principals, i.e., a statement on "Marking of an Apprentice," "Teachers Report on Apprentice," and the principal's final "Report on Apprentice." As implied by the titles of the above bulletins "the Professional Laboratory Experience at City Teachers College is in two major divisions. The first is called Observation Participation Teaching; the second, Apprentice Teaching."[1] Such materials fit our more general category of formal doctrine.[2] They specify the goals and objectives of the program and the kinds of organizational procedures which have been instituted as highly probable means for reaching the goals.

Observation-Participation Teaching

The pre-apprenticeship program contains two years of liberal arts work during which time a minor field of concentration is started and continued during the four year program. The professional sequence is undertaken during the junior and senior years.

> The core of the professional program at City Teachers College is a sequence of the following courses: Educational Psychology, Technique of Teaching, integrated with Observation-Participation, Apprentice Teaching, Philosophy of Education, Child Psychology. . . . Concurrently, courses are taken in the

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[1] Since the data for this report were gathered, City Teachers College has instituted an additional pre-apprentice field experience at the Junior I level in conjunction with the Educational Psychology course.

[2] See earlier discussions by Selznick (1949) and Smith and Keith (1967).

special techniques in various curricular areas.

The last two courses above are taken following the completion of the apprentice program. However, in terms of the formal doctrine we are most concerned with the field experience prior to the apprenticeship which was to acquaint the teacher trainees with primary, middle, and upper elementary grades. The formal statement on this program is as follows:

> Technique of Teaching: Observation and Participation (Junior II semester) The students in this course spend three hours each week on campus studying those techniques which are based upon sound philosophical and psychological principles. Each student spends some two and one-half hours each week in an elementary school. This is done in groups of about twenty for six weeks and then in pairs for the remainder of the semester. All visits to the schools are planned and supervised jointly by the campus classroom teacher and the teachers being visited. The first visits are primarily for the observation of selected techniques. While working in pairs there is considerable participation in the elementary classroom activities. The observation-participation part of the program is evaluated by the classroom teacher as a part of the Technique of Teaching Course. The students report on and evaluate their own experiences in this area to a considerable extent.

The reality of this program is varied; the summary notes indicate the manner in which the apprentices spoke of it.

> Other general reflections follow from the Friday interview with Mr. Hull. One deals with the nature of the practice teaching which the apprentices undergo before their present apprentice training. Evidently this varies greatly. Mr. Hull commented that roughly half of the people actually do have an opportunity to teach a lesson in student teaching. I asked whether perhaps observation would be a better title for the course than student teaching, and he said "definitely, yes." This report on student teaching was somewhat verified by Mrs. Baker who indicated that in her case she did have an opportunity to teach several spot lessons but that in roughly half of the cases this was not true. Typically the group would visit classrooms and discuss their observations and later in the semester they would visit classrooms one at a time and perhaps write these up, or discuss them in class, and theoretically at the end they were to teach a spot lesson in the classrooms they had observed. This, however, appeared to be almost at the whim of either the cooperating teacher or the student himself, and knowing human student nature evidently the half that did not teach were those that did not ask or were not pushed to teach. (9/29)

Objectives of the Apprenticeship Program

Reviewing the materials from the bulletin on the Apprentice Teaching Program makes it possible to make a statement concerning the objectives of the apprentice program. In paraphrase form they appear to be as follows:

1. Understanding the "development of skills in each subject-matter area from Kindergarten through Grade VIII."
2. Understanding the "importance and relation of learning in primary levels to middle and upper grades."
3. Understanding the nature of good classroom organization and management.
4. Understanding good teaching techniques with individuals and groups.
5. Knowing classroom techniques or devices that are helpful to the teacher.
6. Knowing about the school services in your building.
7. Becoming acquainted with and knowing how to fill out school records.
8. Understanding differences in background and behavior of pupils from different socio-economic areas.
9. Knowing how to evaluate pupil learning.
10. Understanding the necessity of continuing development of one's knowledge in all the subject areas taught.
11. Understanding the importance of developing good working relationships with the principal, teachers, pupils, other members of the staff and parents.
12. Developing an understanding of children.
13. Developing enthusiasm for teaching.

Assignment to Schools

The statement on the basic structure of the apprentice program as it relates to pattern and personnel involved is as follows:

> Each apprentice will be assigned to one school for the first 10 weeks of the semester and to a different school for the last 10 weeks. The two schools will be in different socio-economic areas of the city. Each apprentice will be expected to complete both parts of the program successfully.
>
> The assignment of the apprentice for both parts of the program will be made by the Supervisor of Apprentices, the President of the College and the Assistant Superintendents of the elementary school districts.
>
> The Supervisor of the Apprentice Program, Miss Perkins, will coordinate the entire program in addition to supervising as many individual apprentices as practicable. The Supervisor will be assisted by Miss Revelle. They and the principal will be jointly responsible for the planning and evaluating the work of the apprentice.
>
> If the last 10 weeks assignment is in the same district as the first 10 weeks assignment, the same supervisor will work with the apprentice for both periods. If the second assignment is in a different district from the first, the supervisor in the second district will serve.[3]

As it turned out during the fall semester, apprentices whose names began with the first half of the alphabet were assigned to one supervisor and those in the latter half of the alphabet were assigned to the other supervisor. The exception to this procedure was that the twelve apprentices participating in the study were supervised by the Supervisor of the Apprentice Program and were members of her Friday afternoon class on Classroom Organization and Management which is taken concurrently with the apprenticeship.

The bulletin provides a more explicit statement concerning the assignment of apprentices on a 10/10 week basis in each of two contrasting socio-economic areas. The schedule of assignments differs for men and women in the primary division (K-3 as normally designated but in the Big City schools is organized as a Levels Program). The basic levels are KG, A, B, C, D, and E. Additional differentiation frequently is made within levels, for example, A-1, A-2 and B-1, B-2 and C-1, C-2, etc. Two levels frequently exist in one room and in addition there may be three reading and/or arithmetic groups in a given room. In the intermediate grades a part of the reality is not infrequently to find a fourth and a fifth grouping in the same room or a sixth and a seventh in the same room. This is a part of the real world to which the apprentices are introduced and which a casual perusal of the assignment schedule for men and women apprentices does not reveal. The assignment schedules reveal that a complete two-week by two-week schedule is followed by the women covering 10 teaching levels and twenty weeks. The male apprentices are not assigned usually to KG or levels A and B. In lieu of this assignment they have two weeks each in levels C, D, E, and grade four and three weeks each in grades five, six, seven, and eight.

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[3] City Teachers College, Apprentice Teaching Program, Big City Public Schools.

They are in the schools all day Monday through Thursday. On Friday they return to the college to participate in a course called Classroom Organization and Management. There is a sharply specified pattern of induction into teaching that is followed during each two-week (or three-week) period that they spend with each cooperating teacher. On Monday of the first week the apprentices observe all day. They begin to learn the names of the pupils, note any peculiarities or deviancies of pupils, note how the regular teacher has organized the classroom in order to carry out her teaching tasks, and begin to become acquainted with the curriculum and the levels at which pupils are working. The apprentice should begin teaching on the second day--one lesson. "Each day one or more lessons should be added until, by the end of the two-week period the apprentice has had a full teaching program. In some cases the apprentice might teach one group or one class for the entire two-week period. The apprentice should have the room alone on Thursday of the last week in the room. This means the classroom teacher is not in the room."[4]

Related activities of the apprentices

Each apprentice is expected to engage in certain additional activities that have been built into the apprenticeship experience. In each school he is expected to spend a full day with the social worker, and is expected to become acquainted with such related school organizations as the Mothers' Club, the P.T.A., and Patron's Association. In addition, at the principal's discretion, he may be expected to attend faculty meetings. Certain additional assignments add to the total load. These are over and above the normal expectations of lesson planning, learning pupils' names, gathering materials for teaching, and teaching for the cooperating teacher, principal and college supervisor. These include the completion of "a questionnaire asking for detailed comparison of significant aspects of the two schools";[5] familarizing himself with the materials on the Apprentice Teaching Program (they were tested over this material at the end of their first week in the schools); "a brief written report evaluating the total semester's experience." In addition it is strongly recommended that:

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[4] City Teachers College, Apprentice Teaching Program, Big City Public Schools.

[5] Ibid.

FOR YOUR BENEFIT: FOR FUTURE REFERENCE, KEEP A NOTEBOOK IN WHICH YOU INCLUDE PRACTICAL HINTS AND REMINDERS, SUCH AS A TEACHER'S PROGRAM FOR EACH GRADE, SAMPLES OF CHILDREN'S PAPERS WITH YOUR COMMENTS OF HOW AND WHEN USED, NOTES ON OBSERVATIONS, SUGGESTIONS GIVEN TO YOU BY THE CLASSROOM TEACHER AND THE SUPERVISOR.

An apprentice weekly record sheet is kept specifying the lessons taught and the lessons observed. For each lesson taught there must be a corresponding lesson outline on file including date, subject-level or grade, objective, materials, procedure, follow-up or assignment and evaluation.

Supervision and Evaluation

Supervision and evaluation of the apprentice is carried out on three levels. At the first level of the cooperating teacher there is responsibility for teaching the apprentice, for having conferences for improving his teaching behavior and finally for evaluating the apprentice on items included under the following general categories: (1) Personal qualifications; (2) Professional qualifications; (3) Instruction; (4) Classroom management. These categories are to be rated according to a grading scale of A, B, C, D, F or in four instances according to the designations of satisfactory or unsatisfactory. Additional opportunity is provided for comments on strengths and weaknesses and for noting in a yes or no manner the suitability of the apprentice for the particular grade. (Implied at this point is a connection between the rating on suitability for a particular grade level and later job placement in the schools.)

At the second level the principal is responsible for observing and having conferences with the apprentice, for summarizing the reports of the various cooperating teachers and assigning ratings in each of the categories, and for assigning a final grade for the work of the apprentice in his particular school. The principal also reports the dates on which the apprentice entered and left the school, total days served, days absent, the number of weeks spent in each grade and the time spent on other assignments. In addition to comments he is asked whether he would like the apprentice assigned to his school and for what grades the apprentice is best suited. At the top of the principal's report is a space for the college supervisor to say "I (do, do not) concur." The report from the first school is due at the end of the ninth week of the semester and from the second school at the end of the nineteenth week of the semester.

At the third level the college supervisor is responsible for overseeing the overall work of the apprentice so that appropriate assignments and activities are engaged in by the apprentice and is generally in accordance with the statement on the Apprentice Teaching Program. In addition the supervisor observes the apprentice teaching, has conferences with him after each observation, has the apprentice in the course on Classroom Organization and Management, and is jointly responsible with the principal for the assignment of the final grade. The College provides an explicit statement on the Presentation of the Lesson for the Supervisor. It is as follows:

1. Every pupil should be in the room at the time of the lesson. The apprentice should be in complete charge of the room. (This means the classroom teacher should not be in the room.) The apprentice will be responsible for all instruction, assignments, and discipline.

2. Have a simple outline of the lesson or lessons to be taught.

3. The apprentice will be observed in changing from one instructional group to another or one class to another. This means that more than one lesson may be taught on the same day for the primary supervisor and for the middle and upper grade supervisor if time permits.

4. The observed lesson should be an instructional lesson--not a checking of assigned pages or a list of questions.

5. The lesson is not to be a "show lesson" or a "practiced lesson" but should suggest evidence of careful planning, application of sound psychological practices, and demonstration of good techniques.

6. Have the outlines of the lessons taught and the weekly teaching program ready for the supervisor. (The supervisor will provide time for a conference at the conclusion of the lesson.)

FORMAL STRUCTURE: THE KEY POSITIONS

The formal doctrine of City Teachers College specifies in writing the objectives and procedures of the apprentice training program. This program, however, is only one aspect of the total program of two larger organizations, City Teachers College and the Big City Public Schools. In fact, the former, City Teachers College, is one arm of the Big City School System. As large organizations, each of these has a structure--a set of positions. Some of the positions are related critically to the apprenticeship program, particularly, the College supervisor, the principal and the cooperating teacher. We will look at how these positions function in the education of the apprentices.

The Supervisor

The complex of relationships into which the apprentice is thrown and the evident disparity in expectations in any given situation may often place the apprentice in anxiety producing situations. Differences among apprentices in their ability to handle these complexities present major problems both for apprentices and the other personnel--cooperating teachers, principals and supervisors--in trying to develop appropriate attitudes and organizational patterns to handle variability among apprentices. A key person in this situation is the supervisor of apprentices who has responsibility for overseeing the total program, for teaching the course on classroom organization and management, for seeing that the experiences of the apprentices are in line with the objectives of the program and for observing, supporting, and being a critic of the apprentices' teaching. When school practices and the experiences of apprentices are out of line with supervisory expectations, problems can arise and not infrequently the apprentice is caught in the middle. Some of these entanglements and dilemmas are brought to light in the field notes.

> It's now 9:50 and I've just come from a long and productive talk with Miss Frank. She raised a whole series of problems which require extensive comment. One of these centers on a role conflict problem and could well provide us with a vehicle for the analysis of this phenomenon. She's seeing things that she doesn't think ought to happen in the school, such as no free activity period in the Kindergarten and corporal punishment of the children, hitting them with rulers or paddles. Some of it becomes visible to her supervisor when she makes her lesson plans or when she conducts a class. The supervisor, Miss Perkins from City Teachers College, reads her out for this. At the same time she feels she can't tell the teacher how to run her business. Similarly she is afraid to raise the issues of the corporal punishment with the teachers because they know they shouldn't do it and she knows they shouldn't do it. It gets very complicated. While she hasn't formulated it clearly, she is sensitive to the fact that the teachers use corporal punishment, a whack across the hands, or across the backside, partly to quiet an individual kid, partly to scare him for the future, and partly to scare the other kids for the future. It is a public phenomenon in each instance which she doesn't like but which to me sounds like it's carrying out some of the ripple effect consequences.[6] It serves the teachers' purposes very well.
>
> One additional specific incident which is cited concerns the role conflict problem. She reported to her supervisor, Miss Perkins, the fact that there was no activity or play free time in the Kindergarten. Miss Perkins went

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[6] The reference here is to a paper by Kounin and Gump (1958).

> to the Principal with this and while, from what I understand, she urged not to say or do anything until after the apprentice was out of the room, suggested that the Principal might walk in and make his own observations, it still leaves the apprentice in the unhappy position of being an informant. She even commented about Miss Frank's writing notes during the class period which weren't really about the teacher but were just in the course of coming to grips with what was going on in the classroom and how to become a teacher. This cooperating teacher who was new to the business seemed to be fearful that again she was being spied upon. In this context the apprentice doesn't "dare" raise many of the more interesting issues about teaching and the tough decision aspects with the cooperating teacher, or in some instances with her supervisor, for fear of the repercussions. In a sense all of these people are bound into a system of interrelationships with their own rewards and punishments--grades--which they can implement which will start the system moving in ways that would not be desirable for the apprentice. Similarly she can't go to the Principal and talk with him for fear of the same kind of entanglements. Such entanglements it seems to me exist in any large social organization, and they would just be a bit different for our student teachers in contrast to the City apprentices. (10/7)

The phenomenon of supervision comes through in a discussion meeting with the apprentices in the following:

> The discussion wandered off over to Miss Perkins, the supervisor, who apparently is observing these apprentices at least as much if not more than any of the others that she has on her schedule. With a big laugh they all gave me the business about what this was doing to them, that is being a part of our project. Apparently Miss Perkins has what they perceive as an ungodly kind of habit of raising cain about the cooperating teachers' practices when she, Miss Perkins, talks with the principals. Miss Frank had given me some of this yesterday, and today Mr. Jennings mentioned that it occurred with his third-grade when she only had two reading groups and she "is supposed to have three." Apparently from the general discussion of all of the people, the cooperating teachers are quite fearful of having Miss Perkins in the room with them. One apprentice indicated there is some feeling of the same sort about me. All this is to say that there's a very complicated network of supervisors, Principals, teachers, apprentices that gets quite intimately bound with careers of people and with a miscellaneous set of rewards within the system. (10/8)

Apprentices raise questions about what it is appropriate to say to the supervisor when they are caught in what they feel is a difficult or unfair situation. There is a certain ambivalence that comes through that is related to the often anomalous position which they feel they have.

> Miss Frank also was very unhappy about the fact that the teacher apparently finds fault with her in a whole variety of ways and continually. She has very little positive to say. My guess is that this has rearoused some of the feelings that she's had from her experience in the prior school where I think she got some quite negative feedback about how she was doing. I need to check with the Principal in the other school about her performance and in comparison with other apprentices that they've had. Some of this might also be picked up from the supervisor. Mixed in with this there are all kinds of serious problems in the supervision for there is very little continuity in anyone who sees what Miss Frank has done in the past and how she's doing now. In this sense it seems to me that her teaching is much superior now to what it was seven or eight weeks ago. My guess also is that Miss Frank has been under some fairly sharp criticism from her supervisor and as she said, she thought she might have embarrassed the supervisor in terms of expressing her perception of the cooperating teacher being critical rather than positive. She used the word embarrassed as she referred to the possibilities of the supervisor's point of view. That relationship between supervisor, cooperating teachers, and the apprentices is a very tricky one, particulary if the college supervisor is to have any impact upon the people at all. (12/2)

School Principal

Among those working in the apprentice program the principal has a key position. In cooperation with the Supervisor of Apprentices the principal assigns apprentices to their cooperating teachers, instructs apprentices and cooperating teachers concerning their responsibilities, observes the apprentice and has conferences with him concerning his teaching and other assigned responsibilities, evaluates, in conjunction with the cooperating teacher, the work of the apprentice and assigns a grade which becomes a part of the permanent record of the apprentice. This is done within the ongoing organizational pattern of the school.

Principals involved in the study included acting principals, first year principals and a number of "old hands" at the job. Administrative style varied considerably in terms of degree of flexibility-rigidity in carrying out the tasks of the school. However, all of them appeared to function within the basic organizational structure of the public elementary schools. Variations when they occurred appeared to be relatively small--idiosyncratic in terms of the personality of the principal and situationally based in terms of the socio-economic class of the school's pupils. Additional problems occurred in terms of neighborhoods in process of change and "bussed-in" pupils--Negroes transported daily from overcrowded Ghetto neighborhoods.

We need to note that the bureaucratic organization of the schools has been developed to insure a certain range of predictable consequences with regard to keeping the records, reporting up the line, sorting and assigning pupils to classes, discipline and decorum, dealing with parents and parent groups, levels program, texts, and curriculum. Having the same curriculum with its emphasis upon identical sequences (within and across schools) made somewhat flexible in terms of pupil progress through the levels program but retaining rather rigid expectancies concerning outcomes for all pupils for progress up the grade ladder has had important effects upon the activities of principals, teachers and apprentices. The organization of the schools places constraints on the thinking of those persons concerned as actors in the situation and serves to limit variations beyond that which might otherwise be permissible.

> I had a conference with the principal at 10:40 for fifteen minutes. He noted that one of the very important things was for students to get their feet wet, to get in front of the class as much as possible. He gave me a brief statement on which there were instructions to the cooperating teachers on the way in which they would handle the student apprentices. (See Figure 2.1) He again raised the question as to why they had to have a student teaching experience prior to the apprenticeship program. It seemed to be too much of a repeat that they could learn the job if they worked hard at it doing the apprentice program. (9/29)

An actual schedule of two of the apprentices issued by the principal of the McKinley School with instructions to both the cooperating teacher and the apprentice appears as Figure 2.1. It is quite explicit concerning the basic pattern to be followed.

Insert Figure 2.1 about here

The principal of the Taft School has a clear-cut position concerning the apprentice program and her role in it.

> The principal in rather straightforward terms explained to me the advantages of the City Teachers College training program over the University program, or, as she put it,

McKinley School

SCHEDULE OF APPRENTICES

FALL SEMESTER

Miss Gordon (1st 10 weeks)

	DATE	LEVEL OR GRADE AND ROOM	TEACHER
1.	September 7 - 17	KG - 230 B	Mrs. A
2.	September 20 - Oct. 1	C - 222	Mrs. B
3.	October 4 - 15	E - 218	Miss C
4.	October 18 - 29	5 - 306	Mrs. D
5.	November 1 - 12	7 - 303	Mrs. E

Mrs. Abbott (2nd 10 weeks)

6.	November 15 - 26	B	To be assigned
7.	November 29 - Dec. 10	D	To be assigned
8.	December 13 - 24	4 - 314	Mrs. F
9.	January 3- 14	5 - 306	Mrs. G
10.	January 17 - 28	8 - 301	Mrs. H

Figure 2.1. The apprentice schedule in the McKinley School.

Apprentice Schedule (Cont.)
Fall Semester

Teachers Concerned:

1. The apprentice schedule has been changed by City Teachers. Now an apprentice will serve 10 weeks in one school and then spend 10 weeks in another school. These schools are supposed to be in different socio-economic (?) neighborhoods.

2. Reasons for this new program may be read in the directive from City Teacher's College. The directive is available in the office.

3. The schedules for the two apprentices have been made up, except, for the first 4 weeks for Mrs. Abbott. The schedule will be adhered to as submitted.

4. The apprentices will not be in the school on Fridays as they will be in class at City T. C.

5. The apprentices will be in each room two weeks.

6. The apprentices should observe Monday and Tuesday of the first week.

7. On Wednesday, the apprentice should teach one lesson.

8. On Thursday, the apprentice should teach two or three lessons. The number will depend upon the supervising teacher and the apprentice's idea of her readiness.

9. On Monday of the second week the lessons should increase.

10. On Tuesday, the apprentice should handle the class one half day and on Wednesday the other half.

11. On Thursday, the apprentice should handle the class the entire day.

12. For the departmental unit the plan will differ as follows: The apprentices will follow the home room as it passes and teach as the unit teacher decides, with the following suggested:

    a. Monday and Tuesday; (1st week) observe.

    b. Wednesday, teach 1st period class.

    c. Thursday, teach 1st and 2nd period class.

    d. Monday, second week, teach 2nd period class.

    e. Tuesday, teach 3rd and 4th period classes.

Apprentice Schedule (cont.)
Fall Semester

f. Wednesday, teach ½ day.

g. Thursday, teach all day.

13. The principal and supervisors will observe the apprentice frequently.

14. The apprentice should try to arrange a conference with the principal at least once every two weeks. At this time problems should be discussed and suggestions made.

15. The apprentice will keep a notebook. In this notebook will be:

    a. A filled in copy of every form used by the teachers.

    b. A lesson plan for every lesson taught.

    c. Notes on good teaching practices observed.

16. The supervising teacher will turn into the office on Monday after the apprentice has left, a grade on the apprentice. The grade sheet will be supplied by the office.

17. The success or failure of the apprentice will depend quite a bit upon the amount of help given by the teacher.

18. If there are questions or discussion, please consult the office.

The Principal

> any of the other supposedly sophisticated programs. . . . Her chief concern seemed to be that the University program did not equip their students with the ability to come in on a moments notice and handle a classroom of children. University students don't do well at the details of teaching. These details are important and involve such things as attendance taking, collection of money, pupil census, book inventory, and so forth. These kinds of management functions were repeatedly mentioned throughout the interview.
>
> As we discussed the student teaching proposal she interrupted frequently to point out additional ways in which the City Teachers College program was superior to the University program. Most of these centered around the following factors: (1) moving all the way up the grades gave them experience and the ability to handle any age level children; (2) they had an opportunity to see the internal operations of the school and the way things actually work as the last week in the school the student teachers are invited to spend a couple of days in her office to enable them to see how important it is that teachers fill out all the forms correctly, return all the books promptly, and so forth.
>
> She made it quite clear to me that she was totally responsible for the apprentices placed in her school. She informed me that she personally took each of these in hand and made it clear to them that they were to come to her for instructions. One quote that I recall had to do with filling out the attendance register. She said, "I tell the student teachers not to listen to any other teachers because they've all got a dozen different ways of doing it. They are supposed to come to me so they get it right." (9/17)

The summary interpretation of the observer notes that:

> Most of the advantages of the City Teachers College program appeared to involve management functions. It was a tremendous surprise to me, in spite of my experience in elementary education, to find out how all important the nuts and bolts are to an administrator of a large public elementary school. During the length of our discussion, teaching competence, knowledge of subject matter or intellectual prowess never seemed to enter the discussion. The common phrase, "being able to handle a bunch of kids," seemingly is synonymous with good teaching. In retrospect, the orientation of the students at the beginning of the year could be an excellent survival course to prepare the student teachers for making their way into the "Big City" school system. (9/17)

In contrast to the Taft principal, the new principal at the Roosevelt School felt he needed to do considerable observation of the apprentice to get a feeling for how the program worked and to see how he might best be of assistance to the apprentice. He seemed to be more flexibly oriented, at this stage, and willing to observe the program in operation before committing himself to a specific set of goals and demands to be placed upon the apprentice.

> He indicated that he will observe the student teacher rather regularly, and that he is not quite sure of the kinds of experiences he wants his student teacher to have. (9/17)

Subsequent reports by the apprentice seem to indicate that the Roosevelt School was less rigidly administered and the faculty given certain freedom to come and go but within the framework of their normal teaching and clerical responsibilities. In the Coolidge School, for example, the teachers were required to sign in and sign out and during the day get specific permission if they wished to leave the building. An apprentice who had come from the Coolidge School and is now at the Roosevelt School comments:

> There is more conversation among the faculty here; I like the organization here better; it is more flexible and the teachers have more independence.

Another observer picks up some of the same kinds of observations concerning the apprentice program.

> It's now 11:15 and I've just left the Wilson School. I suppose the dominant impression I have of the principal is her accenting of intermediary goals. By this I mean that in every room we visited she introduced the conversation and raised the issue of organization. In her school, "The teacher is boss." She spoke also of the differences in the kids in the city and the kids in the county where our apprentices might go. She commented that because of this you have to behave differently toward them. The principal commented about the strength of the City Apprentice Program in that the apprentices she had now as first year teachers she had to spend much less time with than the first year teacher like Miss Quast in the seventh and eighth grade who had only a half day experience for one semester at the sixth grade level. The principal kept emphasizing how organized each class is, and how important organization is, and how one must learn to have a program so that everybody knows what he is doing at every given moment, and that the teacher in effect is the boss of the situation. She talked about the fact that I wouldn't see any of the frills in education. She runs a taut ship. (9/15)

A related problem is noted by the principal of another school:

> The Principal of the Truman School raised a number of things about the apprenticeship program. In commenting

> about people whom she has interviewed for jobs as a part of the screening committee of the city at large, she said that the people from the Teachers College are noted for their ability to give an approximation of an answer at any grade level. Persons from outside the system who have come through a program like the University has, generally have difficulty when they get off the grade level they taught during their student teaching. She commented that they have more supervision problems with these people than with the people from City Teachers College. (Obs: The training program seems to have some very real functions in lightening the supervision load of the principals. How much of it is the kind of training or how much is indoctrination into the system more generally is not ascertainable at the moment.) (9/21)

One of the few negative comments by a principal concerned the brevity of the "2 x 2" program.

> The principal also used the word "smattering" to describe the City program. Apparently she has some questions about what is accomplished over the long term in the two-by-two program. (9/21)

Congruent expectations: the kind of activity

The congruence, or "fit," between the expectations of the principal and the desires of the apprentice appeared in the Wilson School.

> I also got some further information about the Principal's influence on the apprenticeship program. She's the one who turns in the final grade and apparently it over-rides any grade that is given at the College. The College instructors can append an explanatory note as to why they think the grade should be higher or lower but the grade goes as the Principal turns it in. In the case of the principal at the Wilson School she also takes the job quite seriously for she's in and out of the classroom from time to time and has already sat in on a lesson in each of the rooms she's been in. She has on at least one occasion come into the room with the current teacher and indicated that Mr. Jennings, instead of just watching, should be moving about the class and helping the children with what they're doing. Mr. Jennings also sees her as being very influential in the fact that he's teaching a very heavy load and is busy most of the time. He responds quite warmly to this.
>
> Mr. Jennings made several derogatory-type comments about just sitting and observing and that he would much rather be doing some of the teaching. Apparently here we have the phenomenon of students such as Mr. Jennings, if he

> really be this way, who are not analytical and who find that the observational, analytic, introspective orientation is too much and that they would be much better off moving directly into the experience. It's not so much that they know it all to begin with; it's just that that particular form of learning about it is not the modality that is useful. This, it seems to me, can be contrasted with people who want to have a pretty clear notion of what it's about before they jump in. Presumably these two styles of orientation toward problems could be distinguished with some kind of paper-pencil instrument and instructional lessons and procedures be varied according to this. At this point this looks like a very significant lead in moving toward more quantitative research that ought to be hauled out and made into somebody's dissertation. (9/23)

Congruent expectations: the "taut ship"

A number of other factors arise concerning principals, teachers, and apprentices that reflect authority relations and the way the school should be run. Such items are a "hidden agenda" concerning the things apprentices learn concerning items of possible importance to principals. The field notes detail some of the above.

> Just completed a forty-five minute discussion with Mrs. Baker teaching sixth grade at Wilson School. I did not observe her teaching, but just talked a bit about how things were going. Mrs. Baker prefers the climate and atmosphere of this school over that of Grant School and in fact would like to return to teach here in the fall. For one thing, she lives only a couple of minutes from here, and secondly, she seems to agree whole-heartedly with the principal's manner of running a school. Mrs. Baker is rather a stern, rigid disciplinarian, tolerating very little nonsense, and having a very low frustration tolerance level. She remarked that her present sixth grade teacher just talked louder when the kids started speaking, and when she took over the class the first day, she simply waited for them to be quiet; she wasn't going to put up with that nonsense, as she states it. I asked whether this stepping in and taking command of the situation was due to having successfully completed several tours of duty in different classrooms. She said, No, she probably would have demanded her own form of discipline, even the first or second classroom she had been in, but she admitted that she probably would have waited a few days before she would have tried to change things. She commented that this faculty was much more friendly than the Grant group in that after ten weeks some of the Grant teachers did not even know the names of teachers who shared the faculty room with them. I questioned her about the similarties about the two

schools, in that I was struck by the awesome quietness of the two buildings. I contrasted them with several of the downtown schools in which there was always something going on, kids running here and there, teachers' voices were heard, in short, a little bit of life. I was needling her just a bit, but she didn't budge. She said, "No, this is just the way I like it. It's quiet, the kids are not let out of their rooms and everything is well under control."

She was quite anxious that she did not in any way offend the principal. She is learning to play the game quite well, since she has fond hopes of returning to teach here in the fall. When I came at quarter of nine, and saw that she was not teaching, in the corner of the room, I motioned to her and she came out to talk to me in the hall. I assumed that since she was not teaching for another hour, that it would be perfectly permissible for her to go into a separate room to talk. She made very certain that I would have to check with the principal to see that she had permission to leave the classroom in which she was teaching. I questioned her about this, since no other apprentice has shown this concern. She said that teachers had warned her at noon that as long as you kept your class quiet and never crossed her in any way, the principal was always willing and ready to back you up. However, if you once did something wrong, you were a suspect from then on and she was a little wary about her dealings with you. Besides, a day or two ago, another teacher had asked her to please sit with the children for about fifteen minutes while she visited with a parent. The principal had refused permission.

There are comparisons between the Grant and Wilson Schools in which Mrs. Baker has taught and the other three schools in which I have observed. These two sets of schools bring out some interesting comparisons.

I talked to Mrs. Baker about some of the ramifications of being afraid of a principal, such as the very rigid adherence to the status quo, and I asked her (exactly) what she would do if she was in opposition to the way a classroom was being operated, or the way a school was being run in general. She said she guessed she would have two alternatives, either learn to like it, or get out. When I asked about the need for autonomy on the part of the teacher and the teachers' right to play a part in policy making, and/or instructional strategies within the classroom, she commented that this never seemed to bother her. If the principal ran the school in the right way there wouldn't be any such trouble. We then went on to discuss the necessity of reading groups,and this was brought up by Mrs. Baker in her comment that

> that was the one objection she had to the way the principal ran the school, which was the limitation of reading groups to two. What I'm trying to say is that the principal does not have a strong adherence to reading groups and in fact prohibited more than two reading groups past grade three. Miss Perkins is a "three-group man," and in her observation of the classrooms at Wilson has taken an opportunity to tell the principal that she is missing the boat by having less than three. However the principal has refused to budge. Mrs. Baker said one of the fourth grade teachers used to have three and even four reading groups when the principal flatly prohibited it and told her to stop using supplementary materials and rely more heavily on the basic text. Evidently, this teacher took her quite literally, as she got rid of all supplementary materials, and now has one reading group for the thirty-five children, everybody is at the same place at the same time, as the apprentice put it. (1/6)

As we note in detail later in the section on individual differences, the number of variables in each situation that the apprentices confront and their very complex interrelationships almost defy description, let alone analysis. One is tempted to overly simplify, for purposes of analysis by focusing attention upon a "key person," in this case the principal of the school. However, not infrequently, this may leave out of the picture certain unanticipated consequences inherent in the personalities, desires and goals of the apprentices themselves. For example, we noted earlier that the Wilson School is seen in a rigid authoritarian pattern and appears to have more the atmosphere of a prison than a school. The teachers themselves appear to have very few or no degrees of freedom in varying the expected (impact of principal) pattern. Yet, Mrs. Baker, the apprentice, feels comfortable here and would like to teach here in the fall since it is only a few blocks from her home. In questioning her about the very strict and rigid discipline in the school, she commented: "No, this is just the way I like it. It's quiet, the kids are not let out of their rooms and everything is well under control." (1/6)

How to conceptualize some kind of ideal apprenticeship experience that might result in maximizing the "professional" competence of each individual within a framework of wide variability begins to defy the imagination. However, it still appears essential to reduce the "sense of fortuitousness" or "luck of the draw" that seems to pervade the experiences that apprentices have in the schools. On the other hand, one might speculate that the very ability of the apprentice to tolerate a wide range of ambiguity is essential to survival in the system once the apprentice is assigned to a school for his first year of teaching. The apprentice program may not be geared to training the most competent or "ideal type" professional teachers but rather to train them to live and survive in the system and the principal is a key person in that system.

Cooperating Teacher

Perhaps the most vital instructional position in the apprenticeship program is that of cooperating teacher. The position has dual responsibilities--to the public school system and to the apprenticeship program. The apprentice meets eight or nine incumbents of the cooperating teacher position during the semester and must reach quickly a rapprochement which enables the apprentice to engage in significant teaching experiences under the tutelage and supervision of each cooperating teacher. Most of our discussion of the complex processes involved in this relationship we discuss later as "latent dimensions of the '2 x 2' program." There we raise such issues as brevity of contact, variety of apprentice-cooperating teacher relationships, varying models of teaching, and so forth. Our brief comments in this section pertain mostly to the selection of cooperating teachers.

Within the City Teachers College program, the principal has primary responsibility for selecting the cooperating teachers who will be involved in the "2 x 2" program. The informal staff structure, particularly the norms about all teachers are equals and peers, results frequently in everyone's having his turn with an apprentice. On occasion we perceived the problems from a principal's point of view.

> Another item that the principal of Miss Frank's school mentioned to me concerned the current cooperating teacher. She has just a few years before retirement and even though she hasn't been a "creative" teacher over the years the principal feels that the school has a responsibility toward her. Even though she's a "weak link" in the school's program you've got to live with her and work with her; you can't just eliminate her. The principal feels, it seems to me, a tremendous moral responsibility here. She also seems to me to be a "tower of strength" as she absorbs the blows of criticism upon the school. (12/10)

A week later after observing and talking with Miss Frank we reflected on the cooperating teacher from the apprentice's perspective.

> One of the problems of the two-by-two situation is that teachers who are asked to be cooperating teachers often are not "strong" teachers. There are so many teachers that are needed that the principal is under some kind of norms or expectations from the staff that "everyone gets a turn if he wants it," or something very similar to this. This means that some students, such as Miss Frank this past time, have

> been stuck with teachers who are less than Godlike. When one, however, starts raising the question of the consequences of this, the situation becomes much less clear. For instance, one can make a pretty good case that a few such teachers in the experience of most of the apprentices would extend the range of observation of "what teaching is like" and give the apprentice some point of view about situations she would not like to have developed in her own classroom. For instance, I would guess that Miss Frank will never forget these last two weeks. They may get altered in her outlook as currently seems to be taking place, but they will remain there as a very painful learning experience. (12/16)

Imagine a situation of an apprentice who has some difficulties in classroom control and developing interesting lessons for the children, of an elderly cooperating teacher who has similar problems, a school which is changing from an upper middle class school to lower middle and upper lower, and a room which is composed of half lower-lower class children transported in from a Negro ghetto. The apprentice's two weeks were a chamber of horrors. The field notes of an interview the week following the experience capture some of the subtleties of the staff interrelationships.

> We talked a good bit also about the problem she had in the last two weeks. She indicated that she had talked to her supervisor and had also talked to the principal. Apparently this just didn't go anywhere or help her very much. Her supervisor's general position, as the apprentice reported it, was that you can't do very much when the cooperating teacher doesn't have control. She apparently was dealt a pretty severe blow and commented about being very depressed on Monday, "You should have been here then" for the principal phrased the problem around the notion that if you teach well then you don't have many discipline problems. As the apprentice told me, "What could I say?" She also felt hindered in terms of talking about the cooperating teacher in that she thought the principal would "back" her staff. In bold relief came the problems in the social structure of the experience. The relationship between the teacher and her principal, the relationship between the apprentice and her supervisor, the various cross-linkages that exist in this situation and the vested interest that exists in the situation all suggest difficulties in mobilizing resources for the apprentice who is in trouble in one way or another. The problem is complicated further by a later comment the apprentice made that the cooperating teachers often don't know what is expected of them and they don't know what's expected of the apprentice and sometimes the principals aren't sure either.
>
> We might well take the problem as I'm specifying it here

> and pose it for ourselves in terms of "creative solutions" that are available to the college, or to the profession more generally, as it tries to build socialization experiences into the neophyte teachers. The need to build a cadre of cooperating teachers who see clearly what you're trying to do and who share some of your perspectives seems very important. The low amount of resources available to most apprenticeship programs, in this instance two supervisors are handling 70 or 80 apprentices, makes the situation look ridiculous. The whole conception of supervision and what a supervisor might do under optimal conditions of having just a handful of apprentices, suggests once again the need for some kind of conception of the ideal which then can be pushed and pulled in the realities of the situation. (12/16)

In short, the complications ramify quickly into the roles of significant others in the system.

CONCLUSIONS

Our analysis suggested that the apprenticeship program had significant categories of events which we have called formal doctrine and formal structure. The doctrine functioned to give everyone in the system an initial perception of the goals and modal means for reaching the goals. To a degree everyone involved in the apprenticeship was aware of these. At times, as we indicated at several points in this investigation, the apprentices felt that the cooperating teachers were not as clear as they should be. However, the investigators' conversations and informal interviews indicated that the "inbreeding" in the system is high and that many of the teachers, principals, and supervisors came through the system at an earlier time.

The formal structure suggested the importance of the staff of the public schools--especially the positions of principal and cooperating teacher in the lives of the apprentice. We are impressed with the necessity of a distinction between organizational socialization and professional socialization. The "2 x 2" program seems heavily geared to make the apprentices into teachers for Big City Public Schools rather than to develop the apprentices into "teachers-at-large."[7] The system is structured to maximize the power of the principal and the cooperating teacher vis-á-vis the supervisor. The latter position has less control over final rewards and sanctions--grades--and also has responsibility for an inordinate number of apprentices.

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[7] There may well be a high degree of congruence here, for many superintendents of other districts are pleased to have graduates of City Teachers College in their system for "They can do a job."

Chapter Three

The Realities: Latent Dimensions of the "2 x 2" Apprenticeship

INTRODUCTION

Our bias suggests that inclusive labels such as "two-by-two" or a "16-week apprenticeship" must be analyzed into day-by-day events, or stimulus conditions, if one is to make conceptual sense of the phenomenon. As we lived with our apprentices we obtained some purchase on the problem. The more we saw, the more concern and doubt we had for field research formulations which present the independent variable in terms of such simple classifications as student teaching vs. no student teaching or student teaching brand X vs. brand Y. Within "brands" themselves there appear to be significant differences which occur that do not ordinarily receive attention but which are important both theoretically and practically.

Theoretically, great difficulty lies in the definition of latent dimensions. Presumably the latent dimensions have the possibility of being isolated and described as elements--or items, to use Merton's label--within the social stimulus field. However, many of the items are known only after or as they contribute to the apprentice's experience or learnnng. Such response defined variables are a problem for functional theory and for an educational theory which wants ultimately manipulable dimensions open to responsible agents in a system which has priorities among objectives.

THE SEMESTER SEQUENCE

Reality in the public schools has a time dimension. School begins in September, progresses through the fall, and in our instance concludes after Christmas and the New Year in February. Progress in the "2 x 2" this year is through the "odd" grades in the first ten weeks in the first school and then progressing through the even grades during the second ten weeks. The natural rhythm--step by step through each grade level--has been broken to give the apprentices experience with problems of the inner city as well as its middle class periphery, and indirectly with the multiple problems of racial integration and de facto segregation. The semester sequence, then, is an important latent dimension within the "2 x 2" apprenticeship organization.

Introducing apprentices to the program

The first meeting of the apprentices was held on September 8.[1] The basic purpose of this meeting was to acquaint the students with the nature of the apprentice program, the expectations of City Teachers staff, the expectations of the schools and to give the students their school assignments and get them registered. The meeting was handled by Miss Perkins, who first passed out the bulletin on the Apprentice Teaching Program. The assignment for the first week in the course on Classroom Organization and Management was to become thoroughly familiar with the content of this bulletin. They were tested on it at the first meeting of the class.

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[1] At the completion of the meeting of all the apprentices, the field

The field notes capture the essence of this first meeting. Some of the items she "ticked off" in her introduction were as follows:

> The Supervisor of Apprentices indicated that she believed the students would have a delightful half-year in the schools, however some days would not be so good. Secondly, all schools are not alike, physically, in terms of the community in which they exist, and in terms of the faculty. However, they are alike in some ways: all of them have an ungraded primary levels program; all use the same texts; all have a Kindergarten through Grade VIII program; and all have the same curriculum.
>
> She indicated that the apprentices would be involved in a somewhat different program than had existed previously. "We want to enrich the background of experience of the student teachers and so we have instituted a ten-week by ten-week program. The student teacher is to change schools at the end of ten weeks from a school that might have been in a more privileged neighborhood to one in a lower class neighborhood or vice-versa. This program has been instituted to develop a richer background of experience and understanding of the various classes in the community. Each student will participate at each grade level in the schools, Kindergarten through Grade VIII. There will be opportunities for each apprentice to have conferences with both teachers and supervisors." (9/8)

Continuing through the document the Supervisor highlighted the problem of classroom methodology, techniques of teaching, problems of interpersonal relationships and the evaluation of apprentices. These are in the form of tips for apprenticeship success. For example, from the field notes come the following direct quotations:

> "We will be watching your penmanship. Stand on your own two feet. Avoid lecture course. Strike a happy medium

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observers were to meet with the four apprentices they were to observe during the next twenty weeks. It is at the beginning of this meeting that our field notes and our summary observations and interpretations began.

> in interpersonal relationships. Use the eraser, not your hand. Don't talk to the board. Don't take discipline problems out of the room when we're there. No teacher is to be present when we are there--you are in charge. The lesson we observe must be an instructional one--not a review or practice lesson."
>
> "In evaluating the apprentice we will look for enthusiasm, cooperation, punctuality, grooming. Please stand when the principal or teacher comes into the room."
>
> "Teachers and principals will be marking the apprentice, not as a full-fledged teacher, but as an apprentice who is learning to teach." (9/8)

Regarding the opportunity to teach and lesson planning the following comments appear in the field notes. Implicitly these represent potential problem areas for the apprentice in attempting to build a workable social system during his two-week period with the cooperating teacher. Accomplishing this is crucial if the goals of the apprentice program are to be attained.

> "Some teachers may overload the student teachers and some may not allow them to teach enough. However, somehow you need to find the opportunity to get practice in teaching . . . . Show initiative toward the teacher with whom you are working."
>
> It was emphasized that they should have the cooperating teacher in every instance check their lesson outline, though in some instances the cooperating teacher may not wish to. All lesson plans should be available for the supervisor to inspect. (9/8)

At least two additional policy items were emphasized: (1) The apprentice is not to do basement, yard or lunch duty alone, but he is to go with the classroom teacher when she has such an assignment. (2) If a substitute teacher is in the classroom, the apprentice is to leave the room. A final parting warning was given to the apprentices, "Don't try to fool us; we're up to all the tricks."[2]

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[2] At this point the observers were introduced to the apprentices and those who were to participate in the study were asked to meet with us to get information concerning the study in general, an understanding of mutual expectations for the twenty weeks and the gathering of minimal information necessary to facilitating communication. At the conclusion of our meeting with the apprentices it was the impression of the investigators hat all of the apprentices seemed interested in participating and several seemed almost

First days in the schools

Following the initial day of observing, Mr. Evans was given a choice of lessons for his initial attempt. Beginning with A-2's (first grade) he read stories, conducted reading groups, led singing and gradually became acquainted with the short attention span and "wiggliness" of primary pupils.

Moving into the E-1 level (third grade), Mr. Evans worked hard and long developing a "Courtesy" bulletin board. He had arranged with his cooperating teacher to make this his first lesson. The field notes replay the first encounter in this classroom.

> Mr. Evans: Observation of Apprentice--Lincoln School
>
> 9:00 Introduced to cooperating teacher. Apprentice: "Class, how many of you have seen a magician on T.V.? Many of us are magicians. We have magic words. (Yesterday Mr. Evans was working busily in the back of the room. He was making a bulletin board.) Let's read these magic words that will open doors for us."
>
> (Bulletin board has following:)
>
> Magic Words
> Please
> Excuse me
> Thank you
> Please use them
>
> Gives general examples of proper use of magic words. Asks two children to come in front. Teacher stands between two pupils and asks child to hand paper to other child. She does so and says nothing.
>
> Apprentice: "Oh, what did I not hear? Let's try it again."
>
> She tries again and uses "Excuse me." Several other examples follow. Apprentice works hard at being dramatic and interesting.
>
> 9:10 Closes off this phase by asking for children to keep the words in mind and always to be thinkers and use them. Turns class attention to board. Five sentences on board with blanks calling for these magic words.

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eager to be involved. One observer later stated it as follows: "At this point the four I am working with seem to be people I'll be able to relate to and work with." (9/14)

Apprentice calls on child to read sentence and then they read each sentence in unison.

9:15 1. Please _______ ______ for being late, Mrs. Smith.
2. I must say _____ ______ for the kitten.
3. The man asked us to ________ be quiet.
4. We are thinkers when we say __________ to anyone.
5. We do not think when we forget to say ____________.

9:20 Apprentice demands perfection in reading--stays with each child until sentence is correct.
Has magic words on cards and uses them as flash cards, Children read the cards as presented.
Calls for paper monitors--distributes paper--explains heading to be used--tells them to do own work.

9:22 Children quiet and working.

GENERAL COMMENTS
(Obs.: Refers to self as "Mr. Evans" without fail--never uses personal pronoun. Appears eager, enthusiastic, and seems to enjoy his new status immensely.)
(9/21)

The degree of autonomy enjoyed by the apprentice varied widely from classroom to classroom and the apprentice had to make adjustments to these demands quickly. One such extreme case is described in the summary notes.

> Mr. Evans was conducting a reading group and the cooperating teacher on several occasions interrupted to ask the children to repeat a comment, to speak louder, to read with more emphasis, to please stand when reciting. All of these comments were made from the back of the room as the cooperating teacher was ostensibly handling seat work. The student teacher was supposedly in complete charge of the lesson, but however, was not given any autonomy. The reason given for this was simply that the cooperating teacher would, in two more days, be taking over the group again without the services of the student teacher, and that she wanted the children to be sure to have certain habits established.

Due to the teacher's illness in the previous group, Mr. Evans spent about 3-1/2 weeks in the E-1 group. He taught the full range of subjects and the following field notes show a more informal and relaxed apprentice near the end of his stay in the E-1 level.

9:00 Group listening to record as I enter (Mr. Evans

greets me, introduces me to the cooperating teacher. My name is on board. I take chair in back.). The record is a bit difficult for group and they struggle along. Next band has song about Terry Smith which pupils like. Mr. Evans urges more participation--puts a lot of showmanship into song leading. (Some confusion as both apprentice and cooperating teacher select records and seem to be a bit unprepared.) As
9:15 the song is heard on the record apprentice tries to pick up words and lead group. Mr. Evans looks for record. The cooperating teacher takes this opportunity to discuss Dodgers and Giants pennant race. Next 15 minutes--the cooperating teacher has class tell me story of Anthony's visit to their class. This was a boy from Jamaica who visited. (Obs.: The cooperating teacher made a fine oral lesson out of it and used dramatics to punp in need for achievement.)

9:30 Reading Groups:
Mr. Evans, 14 children in front of room--class is made up of 41 Negro children. Bright, airy room, a bit noisy from gym class playground noise. Much stress is placed by both teachers on volume of speaking and complete sentences. (Obs.: One aspect of this 2 x 2 program is the shortness of each exposure may force the apprentice to become an individual since not enough time is spent with one teacher to permit modeling.)

9:37 Group is reading silently. The cooperating teacher breaks in with "Mr. Evans, please tell me if anyone uses their lips to read; they don't belong in this group." Mr. Evans: "Who's not finished. O.K. Slowpoke, let's go." (Mr. Evans' former teacher was more formal in speech and manner. Mr. Evans has switched somewhat in language patterns perhaps due to cooperating teacher.) Pupils finish reading, books are closed. They discuss story--again loud voices, standing when speaking and complete sentences are stressed. (Obs.: Its such a darn rigamarole to answer a question that you really have to want to speak to volunteer an answer. Really, they are reinforcing the non-responding of pupils.) Mr. Evans calls down group 2 for disturbing.

9:45 Group reads spot sentences to answer questions by apprentice.

9:55 Emphasis on form of reading, commas, periods, etc. The cooperating teacher continues to roam the room,

> making comments and suggestions to groups seated
> at desks. Group 2 and 3 have been doing seat work
> 10:00 for the past thirty minutes. (9/29)

In addition to the daily grind of lesson plan preparation and the teaching time involved, other environmental stimuli of the "real world" of teaching bombarded the apprentice. The beginning flux of a new school year posed problems which often interfered with the class schedule and the seeming order and precision of so many minutes for this subject and so many minutes for that activity. New pupils moved in and old pupils moved out, while availability of textual materials did not always match the number of pupils with the latter often outnumbering the former. Pupils had to be shifted between rooms in accord with their placement in the levels program, and even within rooms pupils were shifted from reading group to reading group. Discipline problems required attention, absences occurred, and papers had to be graded. The ever present possibility of an unscheduled supervisor's visit also posed threats. In addition to school related issues, the apprentices carried on a life at home and at City College which often spilled over into the school domain, particularly in the case of Mr. Evans.

An example of the flux of the beginning school year is offered in the summary notes.

> Just returning from observation of Mr. Evans at Lincoln School. More information regarding this constant flux of pupils in and out. Mr. Evans mentioned that he spent some time the first week in his present classroom, due to an illness of his cooperating teacher. He was placed that week in the present room until his other teacher came back. He then completed his two-week period there. Now he is finishing up his second term with this same teacher. He mentioned that in the two-week time lapse there were only 35% of the children today in the classroom two weeks ago. In other words, well over half of the children have been transferred in and out of his classroom in two weeks. Reasons he gave were the changing of levels and the transfer of pupils from classroom to classroom within the building and also some transfer of pupils from this school to other schools that perhaps are a little closer in addition to the transfer of some pupils to Lincoln branch, expecially in the primary. He mentioned the attendant problems that go with this, such as the inability of the teacher to properly peg the children as to which level they are functioning and as a result reading books were distributed only this last Friday after the school year was three weeks old. This chops off nearly a month of the school year due to the flux in and out. In addition to this problem of movement of pupils within and without the building, the school itself does not divide the classrooms as to levels when the year begins. Both Mr. Evans' cooperating teachers had a mixture of as

> many as three or four levels. The present teacher had levels C-1, C-2, D and D-2 all in her room at the same time. Obviously the levels program in this case is defeated due to the fact that there are now four different levels of children within one classroom and the purpose of the program is to reduce this heterogeneity. After several weeks of working with these mixed levels the children are finally shuffled and reshuffled and reshuffled until each classroom teacher has only one level. (9/29)

An interesting and somewhat entertaining side issue in this particular school system was the informal "grapevine" which existed as a result of last year's apprentices who had obtained teaching positions where this year's apprentices were serving. The "veterans" had an opportunity to pass on bits of rather practical advice to the newcomers.

> An interesting anecdote was picked up today in the interview with Mr. Evans. As I was talking to Mr. Evans, a teacher came in who went through the City College program last year and is beginning her first year of teaching at Lincoln School. She was briefing Mr. Evans on some of the do's and don'ts of teaching when Miss Perkins is observing. She gave him several pointers and these are the ones I remember: (1) Don't repeat any of the pupils' answers; (2) Don't say "O.K." and "Yeah"; (3) Don't spell out in all detail your lesson plans because Miss Perkins wants you to be very brief and concise in your lesson plans. For some reason I was reminded of Ben Casey and Dr. Zorba. I could just hear a last year's intern telling Ben Casey "When Dr. Zorba watches your first brain surgery make sure you hold your forceps between the first two fingers and make sure you use green sponges because Dr. Zorba is Irish." Somehow in education we haven't yet got the entry into the profession as rigorous as we might like to be.

Changing schools

While adjusting to different teachers and varying authority structures does tend to present some problems to the apprentices, it would appear that most manage to find some kind of "fit" that enables them to survive the experience. The consequences of this kind of conforming behavior is something that will have to be looked at later. What concerns us here is that in fact the apprenticeship situation can be and often is anxiety producing, tension producing and often frustrating. These conditions have potential for interpersonal conflict generated by certain ambiguities in the apprenticeship role, by lack of understanding of this role on the part of teachers and by the nature of the authority structure within the school bureaucracy. It is the arousal of hostility and its potential for generating interpersonal conflict on the one hand and on the other the fact that most apprentices "succumb to the system" as a way of reducing the tension that concerns us here. They "identify with the bureaucratic system of normative standards and objectives." (Blau, 1955, p. 75)

A brief look at the situation of one of the apprentices midway through the semester as he shifts schools will give some of this picture. Mr. Nunn will change from a lower socio-economic status white school to a lower socio-economic status Negro school. The shift will also encompass a new principal, a new cooperating teacher, and a radical shift in grade level from grade seven with a departmentalized structure to the self-contained classroom at levels D-1 - D-2. Earlier in the semester the apprentice indicated that a friend of his had engaged in student teaching at the Cleveland School and that tires on cars had been slashed and that the children had been difficult to control. He also said that he felt he might have some difficulties working in an all Negro school and that he didn't feel he had the appropriate background to do so. Further, his experience at the Hoover School he defined as a "good one" and he had particularly enjoyed the upper grades under a departmentalized teaching situation. He indicated on numerous occasions that he would really like to complete his apprenticeship at the Hoover School.

On the first visit to the school, the observer talked to both the principal and cooperating teacher as well as the apprentice. Neither the principal nor the cooperating teacher, at this point, appeared to sense that there might be some difficulty.

> The principal talked about Mr. Nunn's assignments and gave me a list of the cooperating teachers and grade levels. I asked him about the school and he indicated it was populated mostly by people that had moved out to the East End; that the school itself was overcrowded and had about 1,200 students and in addition they were bussing 400 students out to other schools. I inquired as to whether the school was more like the McKinley or Coolidge School and he indicated it was more like the McKinley School and that the Coolidge School had more middle class and professional people. He said there might be some differences between the McKinley and Cleveland Schools in that the former draws its entire population from the large housing projects and that this might make a difference with regard to the problems children had. In the Cleveland district most children came from a community in which individual dwellings predominated, though he couldn't say that this really made much difference. There even might be some advantage with children living within a stones throw of the school. The principal then took me out to the portables to meet the cooperating teacher and the apprentice. The apprentice seemed to be somewhat distressed over the younger children. He didn't feel he was getting anywhere. The switch from seventh grade to D-1, D-2 was apparently quite a shock and he was disturbed. I couldn't quite put my finger on why at this point. (11/18)

The second visit to the apprentice began to clarify some of the problems he was having.

> I went to the classroom where the apprentice was teaching and he was just completing an arithmetic lesson. After finishing the lesson he came to the back of the room and suggested that we go out and talk a bit. We went to the front hallway and sat at a big table that was against the wall. He was obviously distraught and upset about a number of things and as he talked they began to come clear. He suggested that the socialization of the kids is difficult and that as apprentices, "we really don't have enough time with them to make any difference." The number of pupils is too great. There is a great deal of cultural deprivation and we don't have an opportunity to really understand these children. There is an overload. This overload seems to make it impossible to do more than rush over things once lightly. Lesson planning runs to one in the morning and if you are serious about the planning it turns out to be almost too much. The cooperating teacher doesn't seem to do much planning, in fact doesn't even seem to be teaching much, just keeping class. He said, "I knew the transition from the other school I was in to this school would be traumatic. One ought to do it with care. Socio-economic levels ought to be considered and the grade levels." Part of his concern seemed to be that he did not think he would do well and he particularly liked the upper grade levels. On top of this he reported that the apprentices had been told that their grades for the last ten weeks of student teaching would be their grade for the semester (in his case in a more difficult school as he perceived it). He indicated that the overload involves six lessons the first day, eight lessons the next day--it was continuous teaching--and that he didn't have an opportunity to observe the regular teacher teach. "It is important to observe a teacher teach, not do all the teaching as an apprentice. One can learn things from observation and thoughtfully put them into practice or adjust them. There is no opportunity in the two-week by two-week for planning continuity. It's day by day. You really don't have an opportunity to think out where you're going and what is going to happen to these kids. It just seems when we come into the school they think we are teachers. We aren't. We are students. I just don't know why they put men at the lower levels, they need more time in the upper grades because this, for the most part, is where they will be teaching." I tried to capture the essence of what Mr. Nunn was trying to communicate and from time to time he would say, "I'm trying to be honest with you. Believe it, I have to say it." He indicated that he had talked with his college supervisor and told her he needed to have his load reduced

> in order to do a more effective job, learn what he was supposed to learn. She immediately talked with the principal and the load was reduced. This was of concern to the apprentice because he had a feeling he had been put in the middle by complaining and felt this might reduce the possibility that he might get a reasonable grade. He had gotten a B during the first ten weeks of teaching. This was a problem which seriously concerned him and he felt was quite unfair. (11/22)

Attempting to delineate the tensions that the apprentice was undergoing at this time should enable us to get at least a partial purchase on problems that exist in the apprenticeship program. A schematic representation of situation, tensions and behaviors is in order at this point.

Insert Figures 3.1 and 3.2 about here

The above situation in which tensions were produced in the apprentice did not appear to spill over to any great degree into the classroom or into his relationship with either the cooperating teacher or the principal. He basically conformed to the expectations held for him by the cooperating teacher. A prime example of this is the fact that he indicated to the observer that he had a stack of papers two feet high at home that represented the seat work done by the pupils. He called it "busy-work." He indicated that it was impossible to grade this and get it back and so it would have to remain stacked up.

His teaching load the first four days was well out of line with stated expectations and he did succeed in getting a correction of this condition through his supervisor who spoke to the principal. This appeared to help in one respect, reduced load, but his concern that having done this might affect his relations in the school and result in the application of sanctions in the form of a lowered grade continued to plague him until in successive classes it appeared that he was having a considerable degree of success both in his relationships with the cooperating teachers and in his classroom teaching. In assessing when he began to feel easier about the apprenticeship, the field notes reveal the following concerning the two-week by two-week program.

> You should have a background before you become a regular teacher so you can understand where the child has been. You are going to have to see the child's social and mental growth.
>
> There is possible personality conflict with the cooperating teacher but it can only last two weeks and you get another

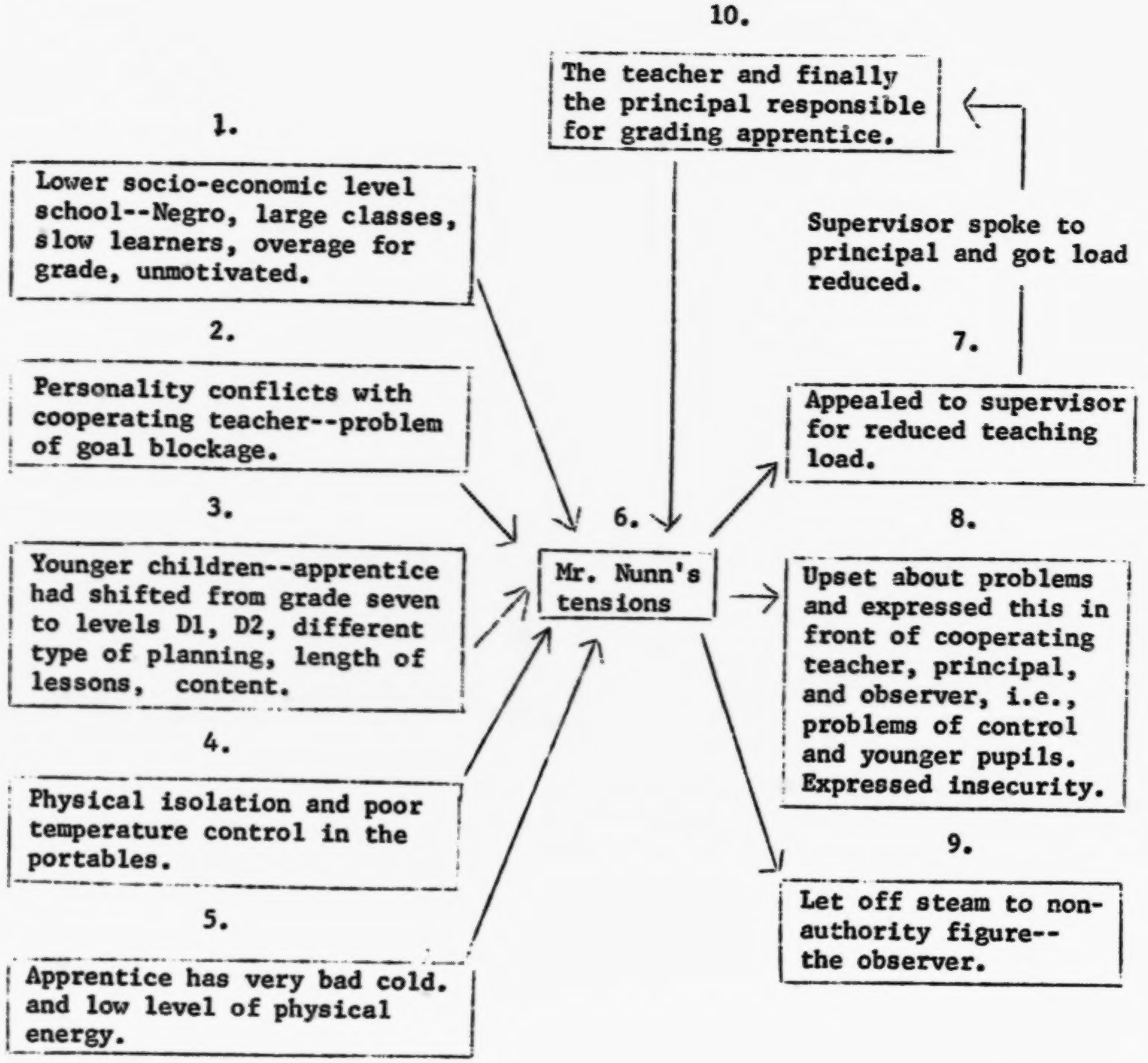
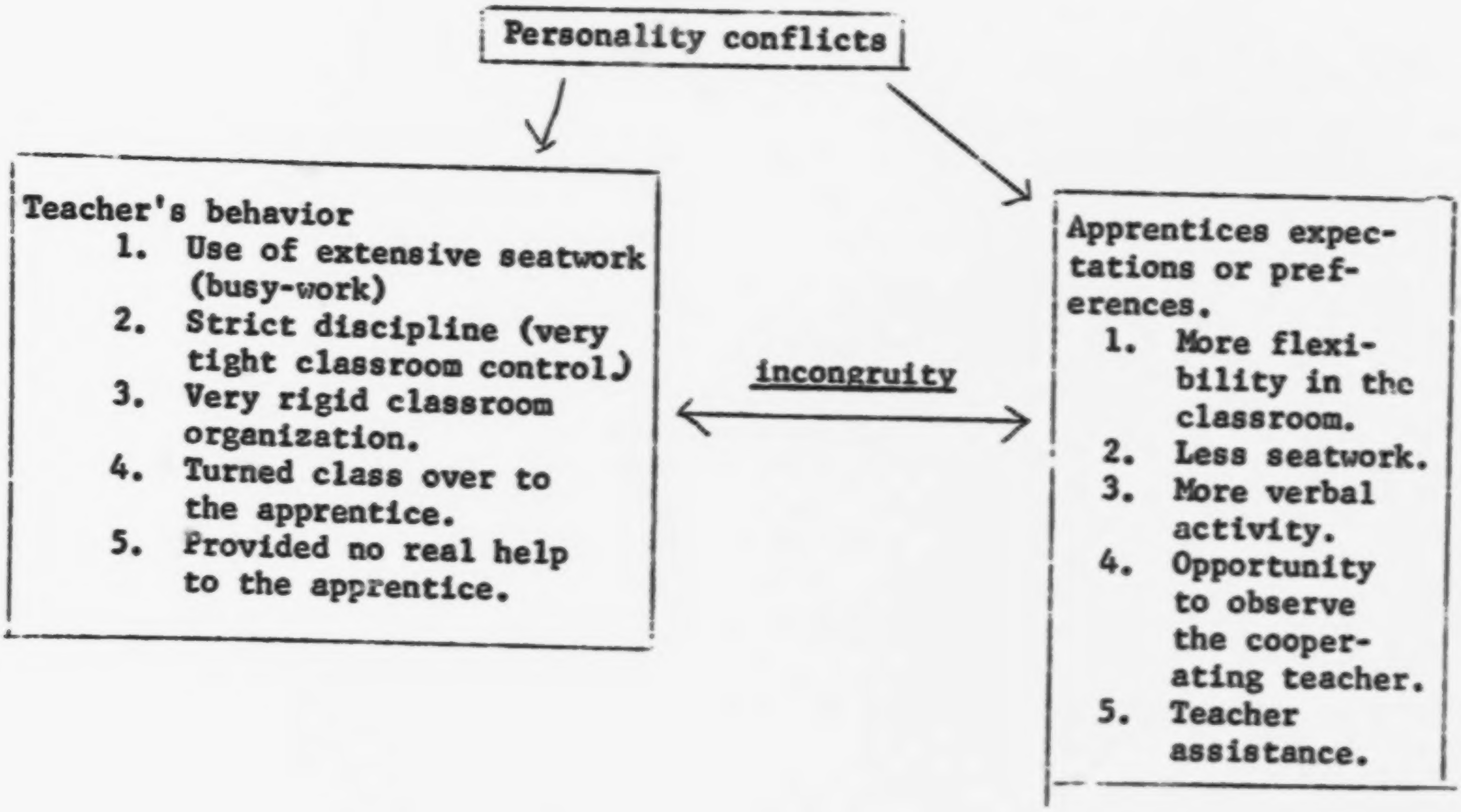

10.
The teacher and finally the principal responsible for grading apprentice.
1.
Lower socio-economic level school--Negro, large classes, slow learners, overage for grade, unmotivated.
2.
Personality conflicts with cooperating teacher--problem of goal blockage.
3.
Younger children--apprentice had shifted from grade seven to levels D1, D2, different type of planning, length of lessons, content.
4.
Physical isolation and poor temperature control in the portables.
5.
Apprentice has very bad cold. and low level of physical energy.
6.
Mr. Nunn's tensions
Supervisor spoke to principal and got load reduced.
7.
Appealed to supervisor for reduced teaching load.
8.
Upset about problems and expressed this in front of cooperating teacher, principal, and observer, i.e., problems of control and younger pupils. Expressed insecurity.
9.
Let off steam to non-authority figure--the observer.

Figure 3.1 Tension in student teaching and supervision--potentialities for interpersonal conflict.

The following chart is an attempt to further break down number two above (Figure 3.1)--personality conflicts.



Personality conflicts

Teacher's behavior
1. Use of extensive seatwork (busy-work)
2. Strict discipline (very tight classroom control)
3. Very rigid classroom organization.
4. Turned class over to the apprentice.
5. Provided no real help to the apprentice.

Apprentices expectations or preferences.
1. More flexibility in the classroom.
2. Less seatwork.
3. More verbal activity.
4. Opportunity to observe the cooperating teacher.
5. Teacher assistance.

Figure 3.2

> cooperating teacher and a chance to start over. Also you are not graded by one individual.
>
> It would have been much easier to remain at the Hoover School for another ten weeks, however, a real professional needs to be able to adjust to new situations. The observer asked: "If you were free to go to another school would you go?" He responded: "I found I can do the job at the Cleveland School."
>
> He indicated that he really didn't learn to adapt in the two-by-two pattern until the fourteenth to twentieth week.
>
> Concerning the problem of developing rapport with each new teacher he said, "Be yourself, don't change the class situation. Fit into their program."
>
> The observer noted at this point: "Mr. Nunn has more confidence now." (1/18)

During the course of the semester talks with the supervisor indicated that she believed Mr. Nunn was very insecure and that as he developed confidence he would do a good job of teaching. This was also a view held by several of his cooperating teachers. Mr. Nunn completed the experience successfully. However it appears to the observer that while learning to adapt to "things as they are," to "meet expectations" in each of the two-week by two-week situations eventually seemed to reduce his tensions, he was still somewhat at odds with what it was possible for him to do in the classroom. He still shows some frustration (to the observer) but is succeeding in keeping it under control.

Ending the semester

The semester ended differentially for the apprentices. Some who had been less satisfied with their second school were pleased to see it go. Others such as Mr. Jennings were perceiving new parts of an interesting world which was gradually yielding to their growing mastery.

> I've just come from a two-hour visit with Mr. Jennings in a sixth grade class.
>
> Whether it's just that I've been working on the data from the Washington School[3] during the past two weeks and I'm

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[3] Smith, L. M. & Geoffrey, W., Teacher decision making in an urban classroom (1965).

full of it, or whether I'm just seeing another piece of the same world, I don't know, but I'm corroborating a number of impressions. As I walked out of the school one of the teachers on the playground during the recess was going after one of the kids. He was a little kid; she swatted him on the fanny a couple of times and backed him up against the fence and he was crying. I assumed he had done a variety of things that she'd told him not to do. However, I was struck nonetheless by the defencelessness of the kid. The teacher had lost her temper and was really bullying him in the worst way. She reminded me of one of the women teachers from the earlier study.

Similarly I was struck by the people loitering around the neighborhood, the poverty, the lack of warm clothes for the children, and on and on. The kids seemed to live in a world of aggression as well, for there were innumerable dyads of fighting around the playground; at least one of these I almost stepped on as I walked down the sidewalk, one kid had the shoulders of another kid pinned on the cold ground.

The transformation that Mr. Jennings has undergone is unbelievable. He moved about the class with authority, with clarity, and with much of the style that is reminiscent of Geoffrey.

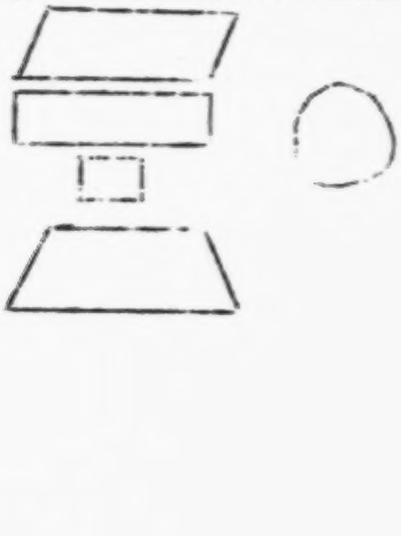
Some of the same problems with the choppiness in time schedules and lessons occurred here also. The business of never being able to complete a literature lesson so that the integrity of the story comes through and the joy and uniqueness of the story is highlighted, continues to depress me. One important resolution of this is to move toward shorter and shorter stories. Perhaps it would be possible to cut up a story such as Sinbad the Sailor, the one they had today, into several units, each of which contains an episode or a theme that could be handled and would be sensible in its own right. In that way you have your questions at the end of each section and you read one or, if you are lucky, maybe two, and you don't get caught in the breaking up of the story and not having any logical ending to it.

Another aspect of the world down there which keeps recurring is the "nobody crowds nobody" dimension. That seemed to run through my whole visit today. For instance it was one of the first things that Mr. Jennings mentioned as he talked about one of the girls who sat up close to the front of the room and to the desk. His reference, I believe, was something like, "She doesn't take anything from anybody." Mr. Jennings also commented how he had had to yell at the kids across the room. Later he was to demonstrate this for me. Although,

> let me be most clear, he integrated that with a variety of more subtle supervisory techniques which approached artistry. Finally there was the display with the boy, Jerry, in which he went through the whole tete-a-tete and which I recorded pretty carefully in the field notes. In effect, he showed the kid that he couldn't be crowded and that he was running the show. Watching this in a lower class school as opposed to a middle class school has one refreshing aspect about it in that it occurs pretty much nakedly and is very obvious and not cloaked in any subterfuge. The other element of this that makes it palatable, I guess, to me, occurs when it's exercised to promote the organizational goals and when it occurs not to the emotional reaction of the adult involved. I would contrast Mr. Jennings' behavior in the classroom and the teacher's behavior on the playground in this way. He didn't lose his temper through any of this, while she seemed to.

In short, we were witnessing an apprentice moving into a particular definition of the professional role, that of responsibility. Briefly we would present field notes of an arithmetic lesson in the eighth grade in which Mr. Jennings demonstrates he has attained another aspect of the role, competency in what we will call later one of the "core skills," the presentation of a review lesson.

> 1:12 Class is organized quickly and quietly by the cooperating teacher. Kids are interesting to look at. They have a country quality--almost all boys wear "boondockers." Many in need of haircuts. Most wear blue jeans. They look "rough" or "hoody"; however. . .
>
> Mr. Jennings says, "Something new. Any of you had 'areas.'"Ties into last year."Stretch your imagination today. In outer space these lines, like sticks out in outer space. Will they ever meet?" Chris says "No."
> He asks why? Think about it.
> Parallel.
> Yes, but what does that mean?
> Going same way.
> True but. . .
> Distance is same.
> Projects a million miles and comes back to parallel.



> Which one doesn't belong?
>
> Circle!
>
> Yes!

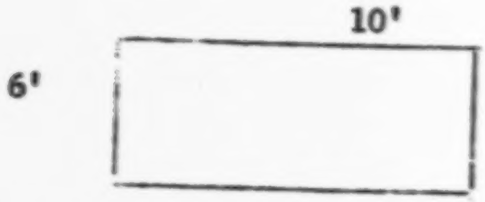
Ronald says top.
How many agree?
Quickly--two.
Some don't agree.
Another suggests bottom.
Boy suggests lines not same distance.
How can we say it a little more intelligently, it's good but. . .
Picks back up on original parallel figure.

1:22 (Obs.: As far as I can tell all the kids are with him.)

Draws two sets of parallel lines.
How many sets of parallel lines?
"4" then "2" as he accents "sets."
Moves to top figure. Makes the extension to not having "up and down." (Obs.: Right angles) Just as long as they are equal distance--parallel.
Defines concept of parallelogram.
Asks for illustrations from class.
Mike suggests blackboard.
Good.
What called.
Square.
Gets error corrected by another child.

1:27 Clarifies rectangle, square, and general case.
Moves to area (this is awk ard), as the inside. Distinguishes between area and perimeter, the outside lines.
Moves to 1 square inch and thus the 4 x 3 = 12 figure.
Raises a giggle or two--"May be different on another planet but this is the way we do it here."
Has them measure with ruler length and width of paper already passed out. (Obs.: Simple but nice preparation.)
Gets 8-11/16 and he asks for "round off" and gets 9.
Other is 6. Suggests ruling inch squares. Kids work along.
"After you've done that look up here so I'll know you're ready."
How many columns? How wide?
Moves to rows and how far? Several say 6, of 1 inch.
(During this he makes 2 passes around the room.)
"Those who get done get the added pleasure of finding out how big the area is."
Gets 54 sq. inches.
Asks how to find area of any parallelogram.
Most kids raise hands. Gets length times width.
He puts on board: a = 1 x w and asks if same as a = w x 1.
Someone doesn't know. Suggests 6 x 9 and 9 x 6. Has them draw diagonal and then tear along ruler or fold and tear.

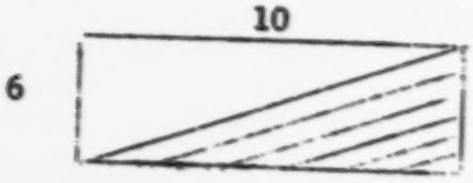
Borrows one set.
(Obs.: He's just as confident and at ease as one can imagine.)
What do we have?
Triangle.
Right.
"Said rectangle is 1 x w. Put triangles back to back. Are they about the same? All right. What would be the area of a triangle?"
One can't answer.
How much of a rectangle is a triangle?
The area of rectangle is how much, etc.
Draws on board.
Finally pulls 1/2.
Writes beginning of formula and pulls final $a = \frac{1}{2} w \times 1$.
All right, let's see: Dad has a garden and wants to pour some concrete.
Draws:



If concrete company says $1.00/.30 sq. ft. Works through problem.

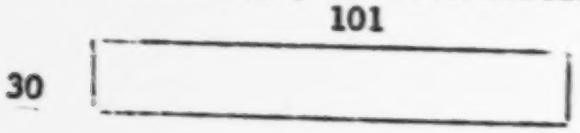
$a = 1 \times w$
$a = 10 \times 6$
$a = 60$ sq. ft.

Draws a single block and asks about total price.
Now moves to a triangle and cost.



How much?
Gets formula: $a = \frac{1}{2}\,1 \times w$
$a = \frac{1}{2} \times 60$
$a = 30$

Cost how much?
Think you got it?
Let's try one at desk.
Use back of paper. Leave formulas on the board. You should know each.
Gives swimming pool illustration:



at $1.50 sq. ft.

"Raise hand when you have it." He checks about. "What'cha get Mike? How cheap! Watch decimal place."
Gets the $4545 answer and notes Mike's $45.45. "All right, all make mistakes. Got to watch carefully." Works through problem.

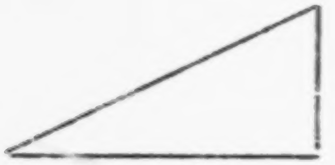
$\begin{array}{r} 101 \\ \underline{30} \end{array}$ and then works through $1.00 x and ½ times

"Two ways of skinning a cat. That's all right." He then works out other at comment of a girl: "All right other way."

All let's move to Hollywood. Fancy pools? Fine? Joan. Triangular and costs more.

(Obs.: This goes over well; important point in double impact of statement.)

$2.50 sq. ft.



Comments on "altitude and height equal width." Checks and asks for answers.
$2162.50
$4125.00
$1275.00

"Different. Boy, I'd hate to have you bidding on my job."

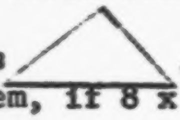
(Obs.: Mr. Jennings' father is a contractor.)

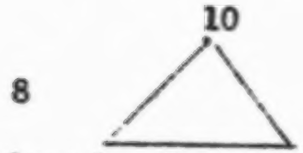
Gets one more.
$2062.00.

$$a = \tfrac{1}{2} \times 50 \times 33$$
$$= \tfrac{1}{2} \times 1650 = 825 \text{ sq. ft. in triangular swimming pool.}$$

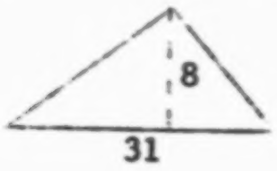
Comments on ½ gave many trouble.
Asks about multiplying by $2.50. Some doubt.
Works out. $2062.50.

(Obs.: Only about 5 got it--at least raise his hand.)

Asks for volunteers to board. Draws . What is it? Someone says pool rack. Sets problem, if 8 x 10 and 1 ball/sq. in., how many?



Brenda to board. Does it correctly.
"Good. Everyone see it?"
Draws another triangle--roof of house.



Has Janice come up.
She does and kids work at seat.

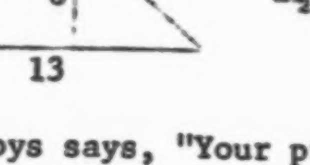
(Obs.: He by-passes the key right-angle aspect.)

Brief interruption when P.E. (?) woman is in and startles a boy. He literally jumps out of desk and into fighting stance. Electrifying reaction. She touched wrong boy. He says, "No, Ma'am" very politely. Class also startled and then laughs in relief.

(Obs.: Suggests that someone from behind who grabs (touches) you needs to be defended against?)

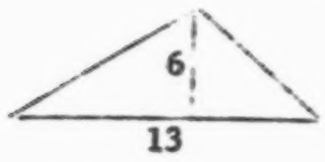
Kids settle down quickly as paper is passed and he puts "demonstration problems" on the board.

Area of rectangle = L x W



$= \frac{8 \times 6}{1} = 48$ sq. in.

Area of triangle $= \frac{L \times a}{1}$



$= \frac{1}{2} \times \frac{13 \times 6}{1} = \frac{72}{2}$ or 38 sq. ft.

One of boys says, "Your problem up there is wrong. Should be 78, 13 x 6 = 78."
Mr. Jennings corrects and thanks him by name.

(Obs.: If by design, it's artful.)

2:08 Assigns page 227, numbers 3, 9, 10.
Kids take out books.
"You may start on them now."
Child asks if s = 5; Mr. Jennings changes from a printed s to a written s.

Kids begin. He takes individual questions.

The group seems to be a "fine buhch of kids." How much is the cooperating teacher and how much is Mr. Jennings and how much is the kids themselves is a big question. Girls remind me of my daughter and her friends. Attractive early adolescents. Some seem full of fire and all are willing to go along.

2:22 Has rulers passed forward.

(Obs.: Another interesting problem centers on which lesson the apprentice starts out with. If Mr. Jennings were to begin in arithmetic he'd create a very different initial image from that in literature.)

LATENT DIMENSIONS WITHIN THE CLASSROOM

In a functional analysis, one keeps hunting for discriminable elements in a social structure which seem significant, that is, which are causally related to other elements in the program. Some of these are functional and lead to organizational goals; others are not. The latter, dysfunctions, must be further analyzed in terms of possible modifications which might be introduced or in terms of functional equivalents, items which take up the slack, so to speak.

Organizational Aspects

Nine trials

One of the latent aspects of the "2 x 2" program is the ability to practice skills and apply generalizations for one has nine trials at new groups of children. We focused on the problems of learning elements of discipline, especially setting up an authority structure, as we reflected on Mr. Jenning's experience.

> One of the morning-after residual impressions I have of Mr. Jennings centers around the phenomenon of "discipline." He seemed to be saying to me. . .that the apprentice's

> problem was to work out a means whereby when he gave a verbal order, command, suggestion, or as he or a teacher would probably put it--a simple direction, the pupils would follow it with a high degree of probability. Initially he seemed to operate on the assumption that if the kids liked him they would follow these orders. In the Kindergarten he made it a point of individually getting to know, and be friendly with, the kids. This didn't work. His move toward the collectivity and toward firmness was his attempt to set up the intervening condition that would establish the authority structure. . . .
>
> An additional aspect of the two-by-two program is the experience that it provides not only as we were pointing out yesterday, with new groups to start on when you have difficulty with past groups, but it also provides an attempt to practice any growing generalizations and points of view such as this one. In effect, the apprentices get nine shots at trying to establish an authority structure. This is a tremendous amount of experience, literally nine years' worth, in contrast to the experience of apprentices from other programs. The potential kicker in this is that the two-by-two may force the individual, because of the brevity of the period of time the system operates, into very directive techniques which then will inhibit certain kinds of academic learning, particularly intellectual skills such as critical and creative thinking, and potentially some of the affective goals of self-discipline and group responsibility and consequently have some very negative long-run consequences. (9/23)

A sub-element of the nine trials involves the sequential aspect of the trial and time of the year in which some occur. For instance, the apprentices see several of the primary units as they are being organized in the first of the year. They see none of the upper grades in this condition. The field notes catch the observer's reflections on this:

> (Obs: As I've observed this week and last, I have a feeling that the beginning of the year is over. The classroom systems seem to be now at a practical equilibrium. Routines of activity are clear and are being followed. The groups are going about their business. Some of this came out in Miss Frank's comments about the first couple of primary classes--they were in the process of getting settled down. That introduces an additional dimension to those noted this morning, i.e., grade level, kids, and teachers. This should show up provocatively at the switch in schools when the apprentices return to the lower grades.) (12/26)

The latent implications reside in such possibilities as reorganizing the program and moving from the eighth grade to the first. Of what profit would it be to move from the end product of this elementary school to the roots of the product? Are the problems in establishing an acceptable equilibrium different in the upper or middle grades? Are there advantages in moving from eighth to first to seventh to second grades, and so forth?

Brevity as a latent dimension

While the City Teachers College has a nine trials dimension, it has also, as our field notes cautioned, a complementing dimension of brevity. An apprentice a month later in October cast the latent structure in these alternative terms:

> Looking at the Teacher's College pattern, he commented that you really never had a chance to do any long-range planning, no units of work, no real opportunity to develop materials. You had no real opportunity to be creative. It is best under the circumstances to stick very closely to the tex material. This is safest. If you try something on your own and it flops, you've had it. He said, "I guess the program does best at making strictly textbook teachers." He doesn't think many teachers become any more than this. On the other hand, he felt you do get to see how pupils develop through the grades. (10/18)

In other parts of the report, the implications of these contrasting points of view receive attention regarding organizational socialization as well as professional socialization. The more immediate implications we have sketched in Figure 3.3.

Insert Figure 3.3 about here

The field notes entertain further speculations regarding the brevity of the program.

> The short-term also seems to provoke to a very high degree the phenomenon of the single lesson becoming the important unit for consideration. This is in contrast to other places that might put the focus on a unit or more extended set of materials or in contrast to other places, the Kensington School for instance, which puts a good bit more emphasis on the long-term growth of the individual. In the latter illustration, for example, one might argue that the emphasis was so strong on the long-term that the individual lesson received almost no consideration. This suggests the need for studies of teacher schemas regarding time perspectives and the units in which they view the educational enterprise. None of these teachers and presumably few that I've run into in Big City, talk about

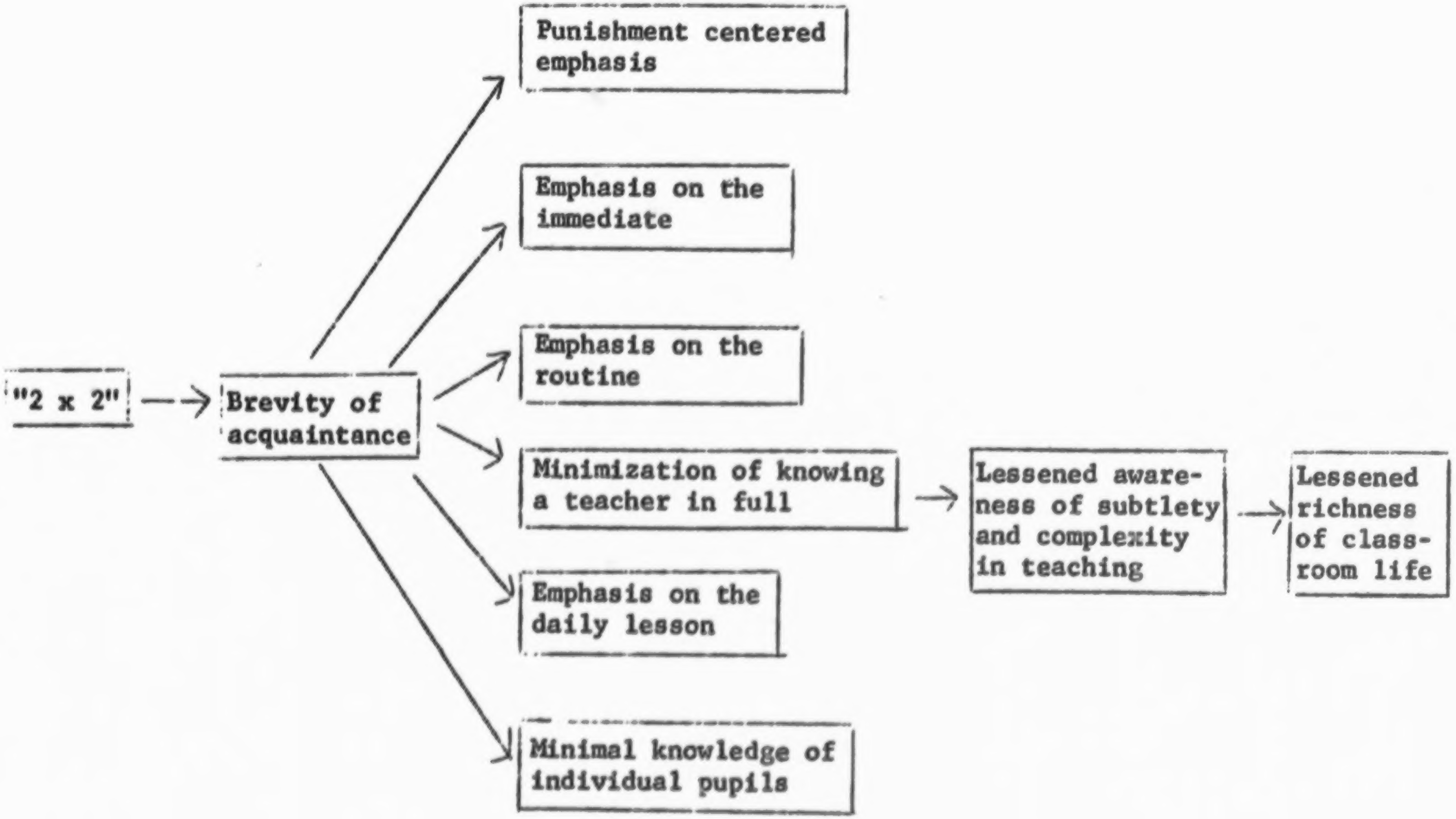

"2 x 2"
Brevity of acquaintance
Punishment centered emphasis
Emphasis on the immediate
Emphasis on the routine
Minimization of knowing a teacher in full
Lessened awareness of subtlety and complexity in teaching
Lessened richness of classroom life
Emphasis on the daily lesson
Minimal knowledge of individual pupils

Figure 3.3 Implications of "brevity" in "2 x 2."

> what they are going to try to do, especially during this academic year. That kind of planning seems almost non-existent. It contrasts quite sharply with teachers I knew at the Demonstration School at Minnesota and some of the county teachers who set up major plans for the year and gradually integrate all the other kinds of things within that over-all plan. This suggests further the need for analysis along the lines of Galanter, Pribrim, and Miller, who have a book on The Nature of Planning. The planning theoretical model and the role model as suggested in the notes yesterday, both seem like good leads. The particular social structure as stated in the formal organization of the two-by-two program of one lesson per day increasing to total teaching Wednesdays and Thursdays seems like a major variable which cuts into the other aspects. (10/18)

The observer noted a further consequence of brevity--lack of knowledge of individual pupils.

> Up to this point I have not been able to get any firm fix on the student teacher's perception of members of the class as individuals. Perhaps this might be a salient dimension of the two-week by two-week program. They speak of reading problems, they speak of discipline problems, but these appear to be in relationship to the group. As I try to probe gently about the home backgrounds of individual children that they mention, they have typically not been able to provide me with any kind of substantive information in regard to their home locality, the family structure, the neighborhood in which the child lives, etc. The movement from classroom to classroom in relatively rapid succession would appear to have the effect of looking at each discipline case as X, Y, and Z, rather than X with this problem for these possible reasons, Y, who has this home life, and therefore has this kind of problem. One specific case in point occurred today when I remarked about the high number of blonde children in the Roosevelt classroom. It struck me that only about four of the 32 white children would be considered brown-haired, the remainder were all quite blonde. When I raised this issue with the apprentice, she admitted that she had not at all looked at any of the pupil records nor had she any idea who the children's parents were, etc. This is the last two days in her three week stay in this classroom. (9/29)

On another day, further speculations rose concerning the brevity of the contact in the "2 x 2" program.

> One aspect of the two-week by two-week program which just strikes me is that the cooperating teacher is bound to retain much more control and autonomy of the classroom than

if a student teacher would have a full semester in which to build rapport with the cooperating teacher. In other words, since the stay in the classroom is for such short duration, the cooperating teacher would probably be more reluctant to change existing patterns and would be more reluctant to give the apprentice a free hand in attempting changes. A short period of two weeks would simply not make it practical to allow these changes. One or two specific illustrations from the experience thus far would illustrate this point. In the Roosevelt School with Mrs. Miller, the cooperating teacher has quite regularly made comments throughout the lesson, has made changes in the program, and has offered suggestions verbally to the apprentice. As the apprentice is teaching, the cooperating teacher joins in and makes contributions to the class. She does not remain out of the picture and does not give the impression that the apprentice is, in a real sense, in charge of the classroom. The other example occurred today in Mr. Evans, the apprentice at Lincoln School. Mr. Evans was conducting a reading group and the cooperating teacher on several occasions interrupted to ask the children to repeat a comment, to speak louder, to read with more emphasis, to please stand when reciting. All of these comments were made from the back of the room as the cooperating teacher was ostensibly handling seatwork. The apprentice was supposedly in complete charge of the lesson, but however, was not given any autonomy. The reason given for this was simply that the cooperating teacher would, in two more days, be taking over the group again without the services of the apprentice, and that she wanted the children to be sure to have certain habits established. Therefore any changes in routine which would be initiated by the apprentice would probably be met with rebuff because of the short time of the apprentice's visit.

However, in a classroom in which the apprentice and the cooperating teacher will be working together for a period of a semester, it should follow that a closer relationship would develop between the two and that an apprentice could take over larger units of time and therefore could institute changes of greater lattitude and greater magnitude within a classroom. The apprentice has a greater length of time in which to prove himself and to show that he perhaps is worthy of the responsibility of making such changes. In plain words, the apprentice teacher for two weeks is apt to feel like a visitor and is apt to be treated as a guest or at worst, perhaps as someone to teach spot lessons but not to upset the ongoing program, whereas in a full semester program there may be greater opportunity for cooperative planning.

In a related area the two-week by two-week program permits

> the apprentice to see isolated bits of an ongoing program but seemingly the apprentices have difficulty fitting these isolated bits into a total program. What seems like an advantage on the one hand in that they truly see the total program of the school, may turn out to be a great disadvantage in that just seeing the total program may be a different thing from actually putting these isolated parts into the total picture. Let me cite one example from today's interview with Mr. Evans. In the lesson of today the cooperating teacher, on several occasions interrupted Mr. Evans and offered mild threats that if the pupils did not read better the books would be taken from them since this was evidently proof that they were not able to continue on this level and using these materials. Near the conclusion of the lesson the cooperating teacher made good her threat by asking the pupils to please close their books and turn them in since they obviously were not yet ready to read. As I talked to Mr. Evans after the lesson I asked him what it was specifically that he felt was the reason the cooperating teacher made the decision to take the books away from this group. Mr. Evans said that he did not really know what it was. He knew it had something to do with the children's inability to use the vocabulary that supposedly had been developed in an earlier level. He said that the cooperating teacher was angry because they did not know the basic vocabulary required. He added, however, that this was only a guess; he didn't really know. The point is that he has only two days remaining in this classroom and therefore will be in as good a position as he ever will be to know a teacher and to know a group in this present two-week by two-week program. Since he was evidently quite vague as to the specific reason, it would lead me to believe that he is not really getting a grasp of the curriculum in this level and is only picking up bits and pieces here and there. One would expect that an apprentice would have developed enough rapport with the cooperating teacher near the end of his program to at least have a pretty good understanding of why such a drastic decision was made. (9/29)

While the two week period is very brief, informal mechanisms arise which extend the length of time.

> The need to move toward more careful definitions and quantifications became very apparent as Miss Frank talked about the cooperating teacher with whom she is working. She said that she had expected the teacher to be very different from visiting with her in the teachers' lounge and apparently she's gotten to know a good many of the people this way which enables them to build the beginnings of a relationship and soften some of the shortness of the two-week affair.

Later we raise the implications of this for our concept of functional equivalents.

The "all day Thursday" phenomenon

The formal program, as we have described it earlier, culminates in the "all day Thursday" phenomenon, that is, on Thursday of the second week the apprentice has the class alone for the full day. This absorption into the total teaching task follows upon seven days of contact and experience in working with the children. It developed into a major latent dimension of the "2 x 2" program. This is pointed up in the field notes as follows:

> While I haven't done much reflecting since the observing yesterday, one item which looms up as needing further analysis is the all-day Thursday teaching alone with the children. For instance, it may well be that the two-by-two phenomenon has within it a more significant element, the all-day once-every-two-week teaching experience. At least in Miss Frank's case, and seeminly some in Mr. Jennings', a good bit of anxiety is provoked about how that day will go and how one gets ready for it. As I think I commented yesterday, it puts a premium on short-term threatening and development of fear-type control of the kids. (10/8)

Thursday alone puts together the experiences of seven prior days of experience in the classroom. From the use of morning work to settle the class down and provide an independent activity to which all can turn on the occasions when they complete other daily seatwork, or quiet work, early, to a change of pace with art and music, to short-term threatening control measures, to getting all the pieces to fit together smoothly on the Thursday alone often appears as a formidable task to the apprentices. The mere weight of preparing some fifteen to twenty lessons for the day appears staggering, let alone the coordination of the tasks of three reading and arithmetic groups and moving smoothly from lesson to lesson across groups and with the total class. To do this on schedule, evaluate learning and get informal feedback on the progress of the class is likely to produce some anxiety.

Friday's absence

In the apprentices' program, Fridays are spent on campus at the College. This has two immediate implications. First, only eight days are spent at a grade level. Second, the experience has a discontinuity in that the Friday of the first week breaks the flow of contact from Thursday afternoon to Monday morning. Early in the semester the issue arose this way.

> A couple of other items have come up regarding earlier observations. One of these happened down at the Wilson School a week ago and involved the cooperating teacher. He commented, and I don't think I have it in the notes, that one of the

> problems with the present schedule is that the students--the apprentices--are not there on Friday, and this leaves a difficult and uncovered situation for Monday. The more general problem that this raises is the issue of the continuity in the system and the brief absences, even as the one day, becomes a real trial and a difficult problem that one has to keep working around. We ought to explore how this is handled. It may be that in the two Fridays that the apprentices are involved it really doesn't amount to that much. (9/22)

A month later, another apprentice commented to the investigators in similar fashion. Again we quote from the field notes.

> Monday is always chaotic because you have lost a day in the schools, the previous Friday. It takes a while to find out what has gone on and where you need to pick up. The regular teacher has taught a lesson. There's really no way in assessing the progress of the pupils because you haven't observed them. This means that when you start to teach the next lesson you need to be aware of how pupils are responding and if necessary shift gears in the middle of the lesson and reteach what you find they haven't learned in the prior material. The apprentice felt the lack of continuity was bad. (10/18)

Every other grade

The College decision to put the apprentices into two schools had the consequence of alternating grade levels, if the "2 x 2" pattern was to be maintained. The apprentices had two kinds of mixed reactions.

In commenting on the 1, 3, 5, 7 pattern of progression through the school, one apprentice said:

> "In student teaching, skipping a grade (1, 3, 5, 7) seems to be quite difficult. It would be better if we could have a full sequence in the school (1, 2, 3, 4)." (11/9)

The other reaction centered on the positive aspects of a second opportunity of working with the younger children after having spent time with the older boys and girls.

Discontinuities: pinch-hitting and other tasks

The "2 x 2" pattern for the apprenticeship is mandated and represents a conception of learning to teach through observation, directed practice on an increasing level during the two week period, and finally "alone in the classroom" on the second Thursday of the two week period. However, within this pattern certain discontinuities develop that get built in because of idiosyncracies of principals and cooperating teachers and situational determinants within the schools (teacher lateness or absence) or directives from above which temporarily remove teachers from classrooms. Though the college supervisor states that "the primary (manifest) activities of the student teachers were to observe, to teach and to work with children, some principals have assigned student teachers to do office work and other kinds of tasks." (9/24) Whether these latent functions of the apprenticeship experience tend to be dysfunctional in terms of the stated goals is difficult to answer. However, considered in conjunction with a "2 x 2" pattern and the built-in discontinuities of Fridays back at the college, going out with the social worker, holidays, illness and the eighth grade testing program, serious consideration must be given to their additive effects. The field notes pick up both some of the extent of discontinuity and some of the possible effects.

> There appears to be increasing use of apprentices to pinch-hit for other teachers both in the grade levels they have taught and in grade levels they will teach during the second ten weeks. (10/7)

Another apprentice experienced it this way:

> Mr. Nunn found out on arrival at school this morning that he would be in the seventh grade from 10:00 to 12:00 so that the regular teacher could attend an in-service program on the new mathematics. Apparently they are moving through the grades from 1 to 8 having a series of programs. The word came down from the Assistant Superintendent that student apprentices could be used to staff the classrooms. Grade 7 is departmentalized at the Hoover School and the cooperating teacher had the pupils doing seat assignments in math. Mr. Nunn is not to do anything but be present in the room. The teacher indicated the schedule, said in case of any problem to get the teacher next door as it did not seem fair for the apprentice to have to discipline a group whom he did not know. She said that if he had been apprenticing in the room at this time, it would have been different. (10/18)
>
> Mrs. Miller described the hectic day that she had Monday, her first day back after the holidays. One of the regular teachers in another classroom had been unable to make connections, and therefore would not be arriving until after dinner on the first day. The principal asked her to please sit in the classroom until the substitute got there in the morning. She spent an hour trying to keep seventh grade students busy and then the substitute took over for the rest of the morning. Somehow connections were delayed and Mrs. Miller was asked to take over in the afternoon for a short period of time. The group she was "teaching" were scheduled to go to gym class at 12:30, and she felt very relieved as the time approached. However, another teacher came and

> asked her to please switch times with her and this meant her group would not go down to gym until 1:15. However, at 1:15 her group could still not go down to P.E.. . .She finally sent her children down at 2:30, which meant that she had the group most of the afternoon. She knew none of them by name, she had no idea what subjects they had at what period and since it had been two weeks since they had been in class, obviously there was no continuity coming from before the holidays. In other words, she babysat for about 35 or 40 seventh grade children for several hours. Then Tuesday she was home due to illness and this morning I spent an hour talking to her; therefore, she will go into her classroom this afternoon and in a very real sense never have seen the pupils that she is going to teach before she steps in front of them. This obviously is an exaggerated form of the usual two-week by two-week approach, but I think it points up one important fact. There must be an emphasis upon teaching subject matter in this kind of set-up, because the usual complete sentence which involves teaching something to someone is missing. In this case the "to someone" is not really a known part of the equation. Therefore, the emphasis is upon preparing subject matter and it wouldn't matter to the apprentice whether she was teaching a TV audience, or extremely bright, or mentally retarded pupils, because she has prepared a lesson and it will be taught to that "sea of faces" regardless of their response to her teaching. (12/14)

We have spoken of "pinch-hitting," the last minute substituting, as a latent dimension of the "2 x 2" program. Throughout the semester this occurred. The consequences varied, but generally the impact was toward building confidence and ability to cope with new teaching situations on a moment's notice.

> I was able to talk briefly with the apprentice following the observation. He indicated that he had taught in the seventh grade the previous day and that the lesson had been on long division. The teacher was going to be absent and the principal had asked him if he would step in and do this. The apprentice said: "It seems that they like to have us able to meet new situations and so whenever possible they give us an opportunity to teach under new conditions." (9/15)

A similar reaction was obtained from Mrs. Abbott:

> Mrs. Abbott commented that yesterday she had to teach in the fifth grade because the busses were late. "I didn't know what to do, so we said the Pledge of Allegiance, we sang the National Anthem. I asked the students about their homework and whether they had had any trouble with it. A number of students indicated they had, so we went to work on this. Even without a lesson plan things seemed to work out fairly well." (9/23)

Her experience accents the additional point--growing independence of the formal lesson plan and textbook sequence of materials and questions.

Subtle satisfactions appear during the course of pinch-hitting and speak to latent needs of the apprentices.

> Mrs. Miller was called upon to substitute one day in the Kindergarten which she left several weeks before, and she was quite pleased that they still remembered her name. (10/13)

An additional important consequence lay in the apprentice's lack of knowledge of the group with whom he was supposed to be working and in the consequent apprehension.

> Mr. Evans mentioned in our 45 minute discussion this morning that he was apprehensive about coming to school this morning. He felt that he would possibly have discipline problems because his cooperating teacher was gone to a special meeting for math teachers and would not be around the building at all. He especially expressed his displeasure at the way she handles the room. Evidently she is a bit more permissive than his former cooperating teacher. . . .He felt that the cooperating teachers graded him on how well he was able to handle the group and this was one of the reasons for his uneasiness. (10/13)

The principal's perceptions tends to be congruent.

> The principal of the Coolidge School said he was going to put the apprentice in a B-1 grade by herself this afternoon. The teacher in that room had been selected as the representative for the United Fund from her school and she had to attend a meeting at the Superintendent's office during the afternoon. He added that frequently student teachers find this a good experience and asked if they could do it again. (9/29)

In some situations, however, limits are drawn:

> A day or two ago, another teacher had asked the apprentice to please sit with the children for about fifteen minutes while she visited with a parent and the principal had refused permission. This contrasts sharply with other schools where apprentices are played like yo-yo's, up and down the stairs wherever they are needed. (1/6)

Insert Figure 3.4 about here

The Cooperating Teacher

The cooperating teacher has long been alleged to be the most significant dimension in the apprentice's or student teacher's life. We found the "2 x 2" arrangement to present some fascinating variations on this theme of central importance.

Variations in relationships

All of our apprentices experienced at least one and usually several relationships with cooperating teachers in which they "caught fire" to use the colloquial term. With Miss Charles it came early and alerted us to the phenomenon.

> For our study this (mutuality in apprentice and cooperating teacher interests) may become very important as the individual apprentice meets the individual teacher, and as you get a special blending of the two backgrounds and personalities or orientations, you then have a very productive relationship that kind of explodes or leaps forward in a way that you would not expect, a kind of discontinuity in the development of the apprentice. Another potential cue on this comes from the apprentice's comments about the Kindergarten teacher, whom she never quite felt as much at home, or as comfortable, with. There were additional problems there in that there were two teachers, a lead teacher and an assisting teacher, and she felt that they had not quite worked things out between themselves and this created some problems in terms of her own work with them.[4] (9/23)

Among a series of problems suggested here is the potentiality for exploring the critical variables in apprenticeship and cooperating teacher relationships. A few of the pairings were as "negative" as this one was positive. Additional subtleties and variations occur also.

The variety of relationships established is marked. In late October a discussion elicited the following notes:

> At Miss Charles' instigation we spent some time talking also about relationships between the apprentices and the cooperating teacher. Both she and Miss Lawrence have had serious problems this two-week period. Miss Lawrence views her situ-

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[4] This casual observation by Miss Charles fits neatly our more general analysis of potential problems in teacher socialization through team teaching. (Smith and Keith, 1966)

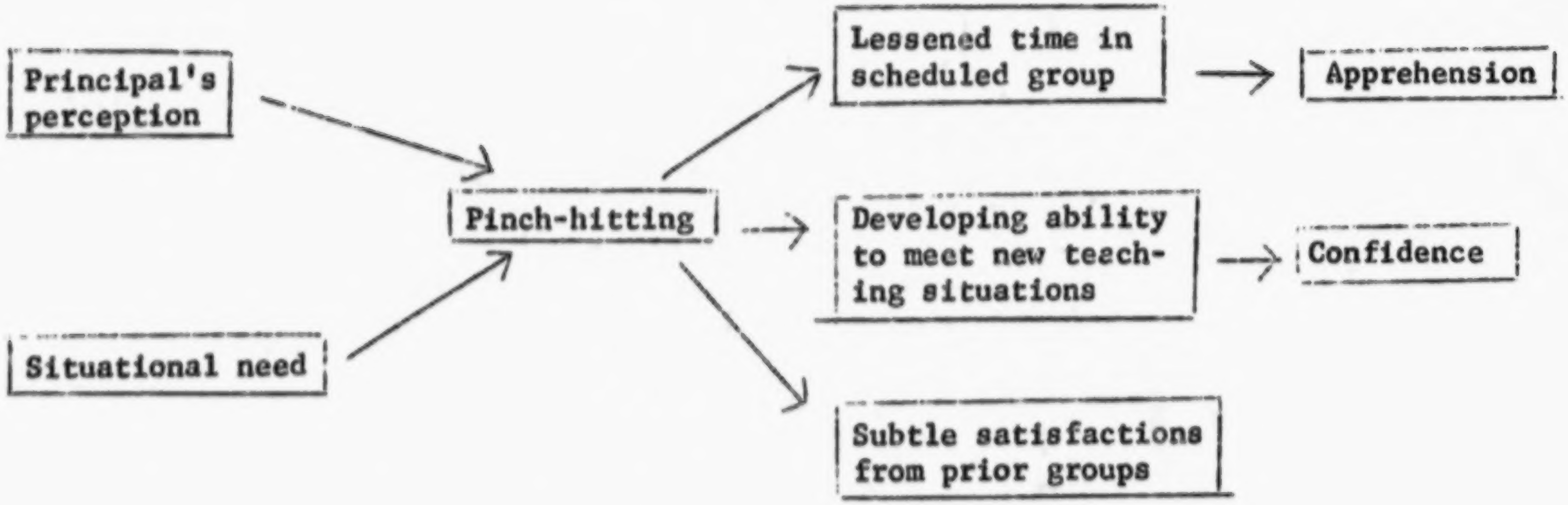
Principal's perception
Situational need
Pinch-hitting
Lessened time in scheduled group
Developing ability to meet new teeching situations
Subtle satisfactions from prior groups
Apprehension
Confidence

Figure 3.4 Antecedents and consequences of "pinch-hitting."

> ation as a competitive one, which seems to me to be an interesting projection, and may well be a matter of fact also, while Miss Charles sees her problem as one of communication. Both of them see the apprentices as often being treated as very junior, or as Miss Charles phrased it, "near to being an imbecile." In Miss Charles' communication problem, it seems to be that the teacher either tells her things two or three times or else doesn't tell her at all and thinks she has told Miss Charles. Her concern and thoughtfulness about it seems to have been provoked by my question as to precisely what was the problem. When I first raised that early in the week, she didn't have an immediate answer. Miss Lawrence's competitiveness (coming out of her athletic background and also about her general orientation to other women, and she was quite explicit about women competing with each other) seems to capture a very large portion of her personality. (10/29)

Apprentice initiative: opportunities and constraints

The social situation in which the apprentice finds himself varies from school to school and from cooperating teacher to cooperating teacher. More precisely, the norms surrounding apprentice initiative vary.

> In terms of approaching the situation of working with the cooperating teacher, Miss Charles' tactic seems to be that there are a number of things that she wants to watch and see how it's done, and then there are some things that she wants to try right away, and there are some other things that she wants to get a demonstration of and then try. This seems to work out reasonably well as she works with her cooperating teacher. It also seems that she moves into the situation in a more rational, and perhaps more reasonable way, than the kind of force I keep feeling that the Principal at the Wilson School wants to introduce Mr. Jennings to. (9/23)

The norms surrounding initiative interlock with positive or negative quality of the general sentiments between apprentice and cooperating teacher and the authoritative directives from the principal. For instance, in regard to the latter:

> There are some strong differences in procedures that are used between the schools. For instance, Miss Charles has taught only one lesson prior to today in the two days that she was in the classroom. The tempo is much higher with the teachers in the Wilson School. (9/23)

Miss Downes was teaching a first grade class the first week of the semester when the teacher intervened to give her an assist.

> The apprentice's speech was clear and her pace excellent for the level of student that she was teaching. She then said, "I will collect your paper. While I am collecting this paper, take out the lined paper in your desk." A hurried, whispered conference with the cooperating teacher seemed to change the pattern of her lesson, for she had them put the paper back in their desks. She then said, "You should not talk. I want you to put your pencil inside your desk. Sit down and face me. Let's put our feet in front of us." The apprentice now proceeded to do the same exercise that the students had done on paper on the blackboard. On completion of the exercise she said, "Think, did you all write the numbers like they are on the board? Did anyone have trouble with a number?" The cooperating teacher then remarked about getting some papers back to the students and suggested singing. (9/14)

Figure 3.5 details the antecedents and consequences of apprentice initiative.

Insert Figure 3.5 about here

The following excerpts from the field notes point up the problems of learning, developing materials, teaching overload and cooperating teacher "interference."

> The students were going out to recess and I had an opportunity to talk with the apprentice, Miss Gordon. She quietly said that the cooperating teacher changes lesson plans before the apprentice teaches--in fact, very shortly before. This makes it difficult to get advanced planning and it is difficult to internalize the changes. She wished that the cooperating teacher would observe her and then be critical of her teaching. There were minor criticisms of the cooperating teacher-- that she intruded into the lesson and that she took the free time that the apprentice had at school lunch-hour and recess to "talk, talk, talk," and to criticise and this time following the lessons. The apprentice indicated that she needed time to have access to the ditto machine and other equipment in order to get lessons laid out and set up. She didn't have opportunities other than this and so this impinged on her ability to function effectively. The apprentice commented that the previous Wednesday she had two lessons. Thursday she had six lessons. Monday, which is the day on which I talked with her, she had six reading lessons, one language lesson, two arithmetic lessons, one science lesson and one social studies lesson. She said this is too many lessons to plan early in the two weeks of

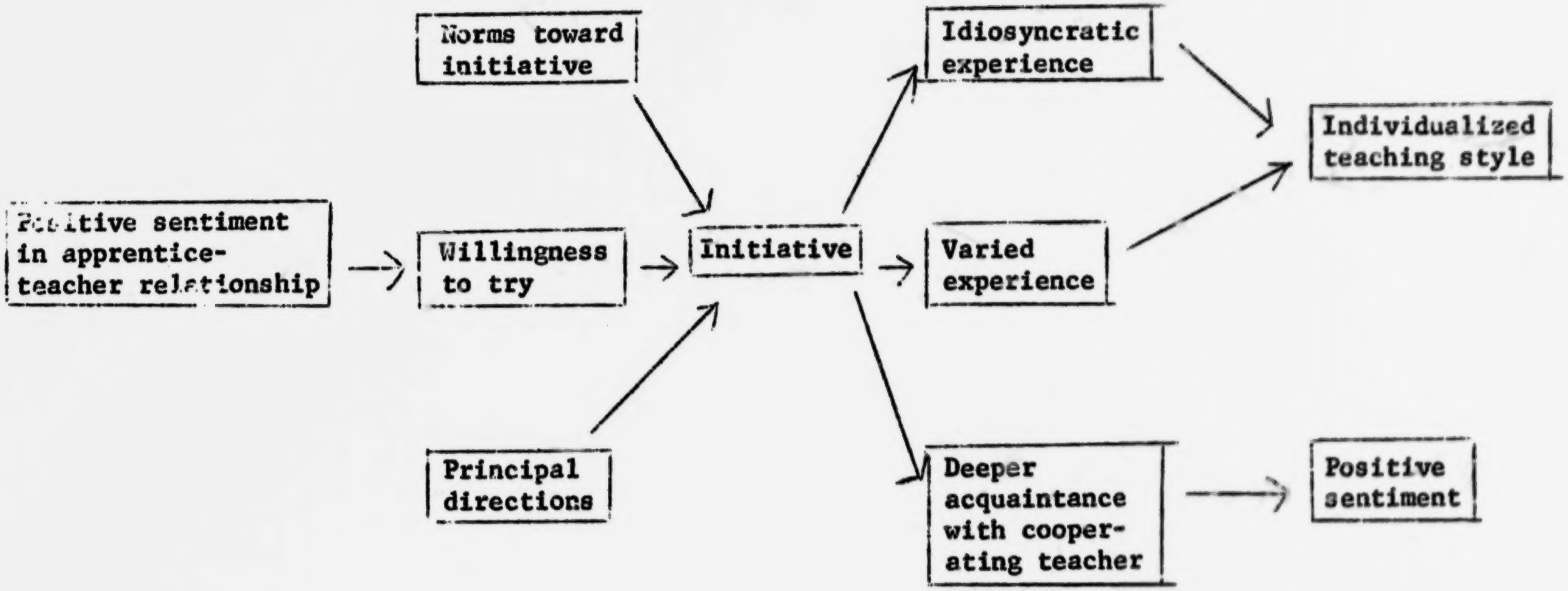
Positive sentiment in apprentice-teacher relationship
Norms toward initiative
Willingness to try
Principal directions
Initiative
Idiosyncratic experience
Varied experience
Deeper acquaintance with cooperating teacher
Individualized teaching style
Positive sentiment

Figure 3.5 Antecedents and consequences of "apprentice initiative."

> teaching. She said she needed to observe, that she hadn't seen enough lessons taught to assess the expectations for her in teaching in this particular classroom. (11/22)

Varying views of teaching

One of the manifest functions of the "2 x 2" program lies in getting to know children and teaching at the full range of age and grade differences. While it is not possible to sort out realistically teacher variance from age and grade variance, the program does present the apprentice with nine personalities in action. Specific data recorded from an interview with Mr. Jennings indicate:

> While he didn't comment at this point at any great length about the differences between the first grade and the third grade teachers, he did note that the third grade teacher was much more "strict." In his words he described her as more "militant," which I judge to be more military. She apparently "gets on" the kids immediately when there is some kind of infraction and tells them to cease and desist and to do a particular kind of thing. In general the kids respond, "somewhat reluctantly," in his eyes. (9/22)

In effect, for the apprentice some aspects of teaching vary from one two-week period to another. In a conversation with another of the apprentices, a further view of teaching occurs and the apprentice reacts to it. We quote from the field notes:

> She indicated that her cooperating teacher is an extremely meticulous and careful planner and that in the morning all of the activities of the morning are carefully explained; again in the afternoon all of the activities of the afternoon are carefully explained. This apparently has rubbed off some on Mrs. Abbott. However, she also commented about herself, that "I want everything to run like clockwork. I was two minutes over this morning in the reading lesson." In conjunction with the possibility of boredom and her reason for thinking the two-week by two-week was important, she noted that every lesson in every day follows a pattern all the way; there is no change. "Once you've learned the pattern and you can do this quickly, there's no need to stay at that class level any longer." (9/23)

Variety of experience

The disciplinary and classroom control trauma experienced by Miss Frank in the first weeks of December was replaced by a very different learning experience in her next two-week experience in December.

> Miss Frank also talked at great length about the fact that she's teaching a "unit on geography." This use of the word unit has some interesting meanings: first, it's a unit in the sense of a section of the textbook, several chapters. It's a unit in another sense that she has responsibility for some continuity in lessons which in a sense she's never had before. As she put it, she hasn't taught a unit before. Also, it's a unit in the sense that she is setting up subgroups of children, three, four, five per group to work on various phases of the problem. This has kind of grown spontaneously and like Topsy, in that some of the kids were interested in doing some map work, while others had a globe that they'd brought from home, and various artifacts of one kind or another. Sally also has an order put in for some materials from the audio-visual which show rubber products and other processes for making rubber. The kids apparently have initiated a good bit of this and are very interested in it and are active in wanting to do a lot of things. She talked about never having done one of these before and really not having been taught anything about using groups this way in social studies. She was as cheery and spontaneous and creative as she talked as I've seen her. (12/16)

When we compare our data of this kind of variety in experience with Iannaccone's data on an alternative approach, we are impressed with the potency of the impact by the "2 x 2" experience.[5]

Breadth of experience

Measurement specialists use a "specification table" to facilitate the building of achievement tests which have content validity. The idea is a simple one and entails juxtaposing two dimensions--content areas with behavioral objective. When applied to the apprenticeship program, it suggests a latent dimension such as breadth of experience. At points throughout our report we have illustrations of the apprentices teaching lessons in all curricular areas--arithmetic, science, arts, and so forth. While the major accent has been on facts and information, attention has been paid to intellectual skill objectives as well as affective goals. One of Miss Charles' lessons in study skills--use of the dictionary--came to typify the breadth of experience dimension.

> 8:53 "Let's take out our dictionaries. Don't open them yet. If you haven't completed your work you'll have time later." Kids obey readily. Has other objects removed. "The dictionary is said to have a wealth of information. What does it mean?" Kids volunteer. One child gives an answer

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[5] See discussion in Chapter 5, pages 199-209.

and another from board. Miss Charles turns to. . . . She has child read. Some difficulty on pronunciation of "possession." Clarifies pronunciation and the definitions.

Has them turn to page 8 of dictionary. This is a section on "How to use the dictionary." By a series of questions Miss Charles leads them through the page. "Find the paragraph which tells about 'entry words'."

Miss Charles has a pleasant smile, an interest in the lesson and carries the group along in generally a supportive fashion. She calls children by name as they are asked to read and as she asks them questions.

Asks about little "n" at end. She raises question. One child says number. Miss Charles points to her illustration on board. Another child says "noun." Asks for other words on page with "n"; kids find them. Miss Charles extends to abbreviations, adj., and verbs.

Introduces the "picture" as another aspect.

9:06 Moves to next page and begins on "alphabet." Introduces the A-G, H-P, and Q-Z break regarding portions of the dictionary. Asks re banana, hospital, witch, etc. Kids seem to know most of this.

9:09 Moves to words on board. Introduces these: "Where would we find them?" The directions on the board ask for pronunciation and one definition. Miss Charles goes over each one in terms of where found. Words: casement, plow, inscription, etc. Has monitor pass out paper. Asks them to "Please put a heading." Also wants n, adj., or v. put on.

Kids tend to be quiet and passive. They do what they are told. No evidence of high spontaneity. Contrasts a good deal with Miss Frank's group which has more initiative re learning. Among those present, no evidence of problem behavior.

9:15 All children are working. Miss Charles moves about the class giving help. The cooperating teacher in and out re errands. As she comes back she checks up the row also. She seems to have difficulty resisting urges to help.

Functional equivalents of cooperating teachers

Latent dimensions in the "2 x 2" vary widely and presumably overlap other organizational formats. Among our apprentices we found wide usage of teacher's manuals. We have noted elsewhere one girl's reference to the "bloody edition," the text with the red-inked directions to teachers. On October 11 we observed Miss Frank in language arts; while we might well comment here on the subgrouping and the alertness of the children, our main reference is to the role of the teacher's manual.

> 1:08 My watch is 5 minutes or so slow; the lesson has begun and Miss Frank is in the middle of reading with a group of 12. Another 9 are doing seat work in arithmetic. Another 12-15 are involved in miscellaneous activities--some arithmetic and some construction.
>
> In reading she used a chart and board to teach the new words using context clues and word analysis technique. The kids seem interested and enthusiastic. They seem younger and more capable than the children in Miss Charles' class.
>
> The boys engaged in seat work are mostly talking among themselves.
>
> 1:18 The cooperating teacher comes in. The boys quiet down and get busier. She goes about her business and the class continues along.
>
> Miss Frank teaches out of the teacher's manual. This provides cues for her for questions, discussions, and sequencing of activities. (Obs.: Presumably these will eventually be internalized, the outer prompts abandoned and the repertory come under more selective and "spontaneous" internal control. All this suggests the possibilities in a Skinnerian analysis. If one can crack the ultimate control and deciding issue, the scheme may be most fruitful. When one has been trained for independence, resourcefulness and creativity, what then has one become? Mental health and socialization in the Skinnerian paradigm.
>
> In a very similar sense, the teacher's manuals especially in reading can be analyzed in terms of the learning theory models which underly them.
>
> The use of these manuals as crutches suggests the need also for an extended analysis of "crutches" in the learning literature, e.g., training wheels on bicycles, life preservers in swimming, etc.)
>
> 1:30 The animation, alertness, flashing eyes in this group contrasted to the morning group is difficult to describe.

The vague, drowsy, out of contact aspect doesn't exist.

1:34 Reading lesson is finished. Kids turn desks around. She had them pulled more compactly together.

1:37 With the "miscellaneous group" she does a word drill using a homemade chart, felt pen and newsprint. The kids know most of the words: worry, hurry, spend, etc. They're eager to participate, 10 or 11/13 hands up.

(Obs.: Apropos of the teacher's manual--as I watch the cooperating teacher watch Miss Frank--the image I get is one of a clear criterion of the "effective teacher," the manual and its use, against which a teacher can be judged. If one goes by the book, you know where you are and you can't be wrong. In a large bureaucracy, such as the urban school, this becomes equivalent to the manual of job specifications one might find in a factory or business enterprise. This suggests solutions to the instructional aspects of technique and leaves the management or supervision aspect open for debate. This, however, can be checked out in their "do's and don'ts" text in their Organization and Management Course.)

1:47 Miss Frank has finished introducing several new words and passes out a study sheet. (10/11)

In Figure 3.6 we have tried to summarize the hypotheses arising in the notes and have tried to link back into our conception of functional equivalents. Insofar as organizationally different structures, i.e., "2 x 2" and "1 x 16," both use teacher's manuals, they will be functionally equivalent through such latent dimensions as this one.

Insert Figure 3.6 about here

The Children as Socializing Agents

The adept group: playing the game

On occasion our apprentices met a class of highly socialized children who knew the game of teaching better than the apprentice and who seemed willing to play according to the latent rules. With Miss Frank this happened in a high ability section in the fifth grade.

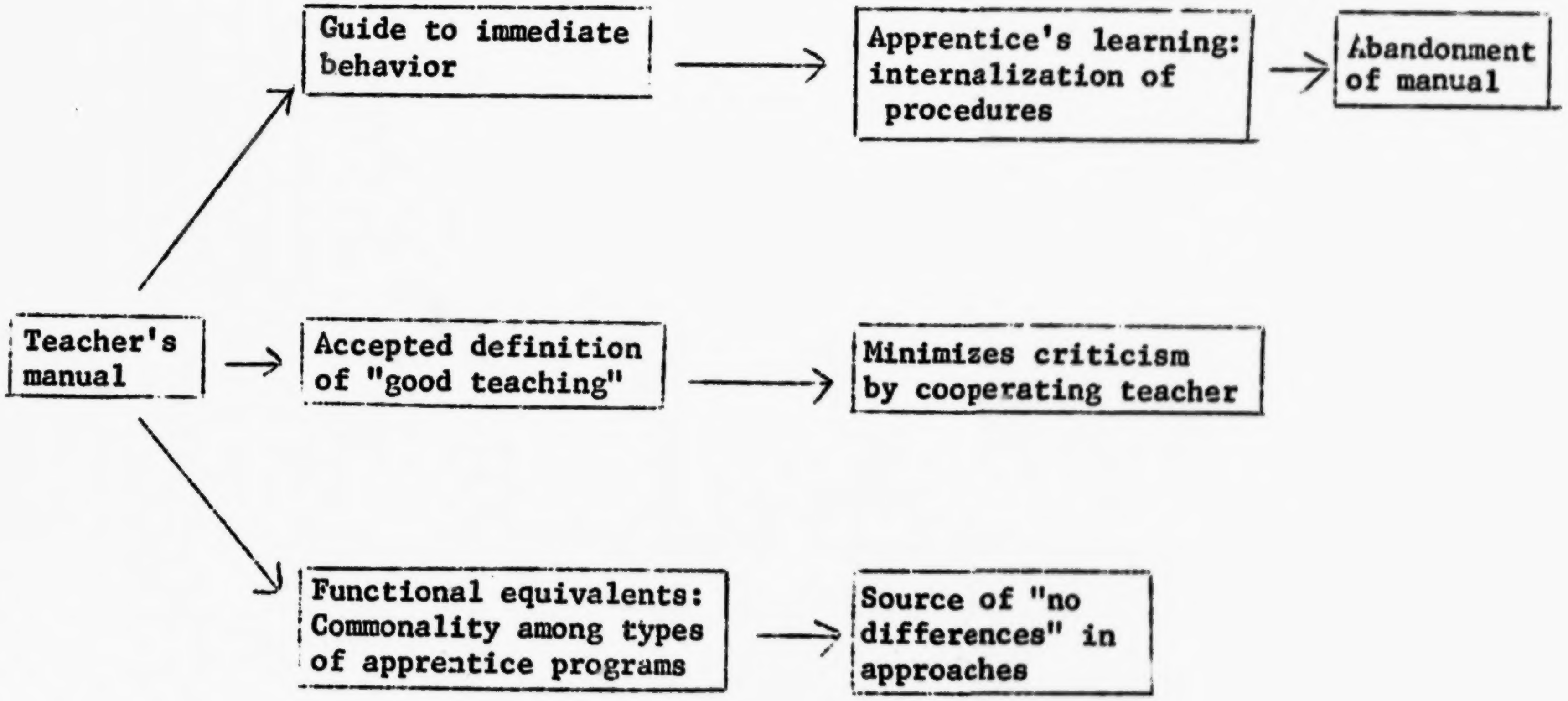
Teacher's manual
Guide to immediate behavior
Apprentice's learning: internalization of procedures
Abandonment of manual
Accepted definition of "good teaching"
Minimizes criticism by cooperating teacher
Functional equivalents: Commonality among types of apprentice programs
Source of "no differences" in approaches

Figure 3.6 Impact of teacher's manual.

Another aspect of the "intuitive feel" in teaching is the locus of the cues one uses to determine one's verbal behavior. Miss Frank takes these from the teacher's manual and not from the kids.

8:56 Begin "Part C" as seatwork. While the kids do this, Miss Frank reads over her manual rather than moving about.

9:00 She now walks about and talks with individual children. With one girl, "You've been taking levels test?" "Yes." "Then do 2, 3, 4, etc."

(Obs.: She moves in neatly and helpfully (synonyms?) here.)

9:03 Miss Frank indicates finish spelling later. Moves into dictionary lesson. Page 10. One boy reads his alphabetized list of words. Some of children have considerable trouble with pronunciation. She happens to call on Eric who seems to have speech difficulty.

(Obs.: Note another apsect of the teaching program. The pronunciation of new words, e.g., characterize.)

(Obs.: Again, in Bellack's terms, the class seems like a game with teaching playing a role and the kids playing a role. The synchronizing is such here that the kids must sit and wait for Miss Frank to read her cues from the manual while they are all ready with their responses. This produces a nice twist to the apprenticeship aspect.) (10/21)

The major point we are reaching for here is the latent dimension of the particular group of pupils as a socializing agent. In a "2 x 2" program where nine groups are available, the class becomes a manipulable independent variable.

The restless ones

The dimensions used to describe intact classrooms become critical, and relevant data are not widespread (see, for instance, Smith & Hudgins, 1966 and Thelen, 1967). Earlier in the same morning we had commented about several possible vairables:

8:40 She has a lesson on a crossword puzzle. Kids have done similar ones in homework and they fill it out in class. Very responsive. No one shouts out. All kids sit attentively. Minimal restlessness.

> (Obs: General restlessness would be a good concept as personality variable and as social interaction variable.) (10/21)

The cluster here includes attentive, responsive, and lack of restlessness. Earlier we had noted that the group was a high ability section; the school serves mainly a middle-class Negro neighborhood; the teacher has the reputation as one of the best in the school. Later in the morning the observer summarized his reaction.

> 9:25 (Obs: Although I've made some critical comments re Miss Frank this morning, the flow of her teaching, the appearance of confidence, etc. are much better than last week. Suggests importance of the kids and prior social structure.) (10/21)

Finally, we might cite Miss Frank's observations, as recorded in her log, after her first day in the class:

> 1. The most important thing you learned.
> I had thought that by the 5th grade many of the children would lose their responsiveness (as they are so responsive--the ones I have had--in primary). However, this is not the case with this group. They are still very responsive and it seems that you can do more with them.
>
> 2. The most interesting event of the day.
> The vast, vast difference between 5th grade and 3rd. It is possible also that this group may be the top group, while in the 3rd grade there were the average children.
>
> 3. The most puzzling event of the day.
> I was very surprised to hear that the cooperating teacher had almost no problems with these children (disciplinary-wise) even the first week or so of school.

Immaturity of the children

Occasionally, the throw of the dice, it seems, puts together children who give the class a distinctive cast. As Miss Frank returned to the primary grades, she, and the observer, were struck with the immaturity of the children.

> Considerable oral behavior--thumbsucking, nail biting, palm sucking by the kids. The most I've seen in a long time. At least a half dozen to ten quite continuous ones.
>
> 11:02 Some difficulty getting the Brownies up for reading. Only six get there. Miss Frank doesn't seem to know who should be there. Doesn't move with a "crispness."

> (Obs: Miss Frank had commented at least twice--on phone and this morning re the "immaturity" of this bunch versus the primary kids at last school. Olson (1929) and his nervous symptoms would have a field day here.)
>
> Kids have minimal ascendence and self-direction. Cooperating teacher had commented about how she and three other primary teachers tend to shift their tone of voice, more like baby talk. (Obs: That was her word.) Interesting problem on how much the teachers adapt to versus cultivate this kind of child behavior. (11/22)

The impossible situation and its consequence--pain

One of the latent dimensions of the "2 x 2" is the variation in the combination of school, cooperating teacher, particular group of pupils, and the talents and limitations of the apprentice. On occasion it became "an impossible situation"; the apprentice did not have the resources and she was overwhelmed. We present in detail the notes from three observations in the two-week period which describe the experience. While it is perhaps the most extreme instance from our data, it illustrates the range of variation occurring in the apprenticeship program.

> 8:48 It's been a week since I was here. Apprentice begins a number lesson.
>
> When I arrived before school, the cooperating teacher told me of her difficulties: half and half Negro and white kids, very restless, and very aggressive. She has "never been so far behind as this year." She comments that the apprentice has been half sick all week.
>
> The apprentice's brief story is that the cooperating teacher has no discipline, and also that she, the apprentice, doesn't get along with her.
>
> 8:55 The lesson continues. The apprentice is building the number sequence, 30, 31, 32. . .She has sets of tongue depressors and the children add another tongue depressor to the row and then fill in a chart. As she shifts from single ones added on she confuses Keith and has to resort to much more directive behavior. She takes his sticks down (almost like the old H. H. Anderson triangle pasting.[6])

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[6] The reference here is to the dominative teacher behavior in making May baskets which appears in Anderson's (1939) study.

> (Obs: This is an interesting extension of the repercussion of poor instructional sequencing.[7] The subtle and easily acceptable influence attempts are not clear so the teacher behavior becomes more abrupt and directive. The "cause" lies not in the attitude of the teacher or in the kid but in the teacher misjudgment and lack of skill. Key concept.)
>
> 9:00 At this point the restlessness--wiggling, tapping, talking, eraser bouncing, band-aid remnant playing, etc. are fairly high.
>
> (Obs: The diversity alone so indicates.)
>
> 9:04 (Obs: At this point, the question arises in my mind that she might shift activities and move to individual seat work.) She shifts by having one child give the next and then he gets to call on someone to go up and demonstrate. Then first must O.K. Apprentice then writes in numeral. This pulls the group back together briefly.
>
> During all this the apprentice periodically calls individually by name the children who are wiggling, talking, etc.
>
> The desks have been turned sideways and they are scattered very broadly.
>
> 9:08 She stops at 50. (12/2)

In Figure 3.7 we have summarized, from the notes, the varied aspects contributing to the "impossible situation."

Insert Figure 3.7 about here

The summary observation notes extend several of the briefly made points in the field notes.

> I just finished an unannounced visit. I got there before school started and got a chance to talk with the teacher briefly; I observed an arithmetic lesson and then I had an extended cathartic interview with the apprentice about her problems with this teacher.

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[7] In the Smith & Geoffrey (1965 & 1968) volume we called this sequential smoothness.

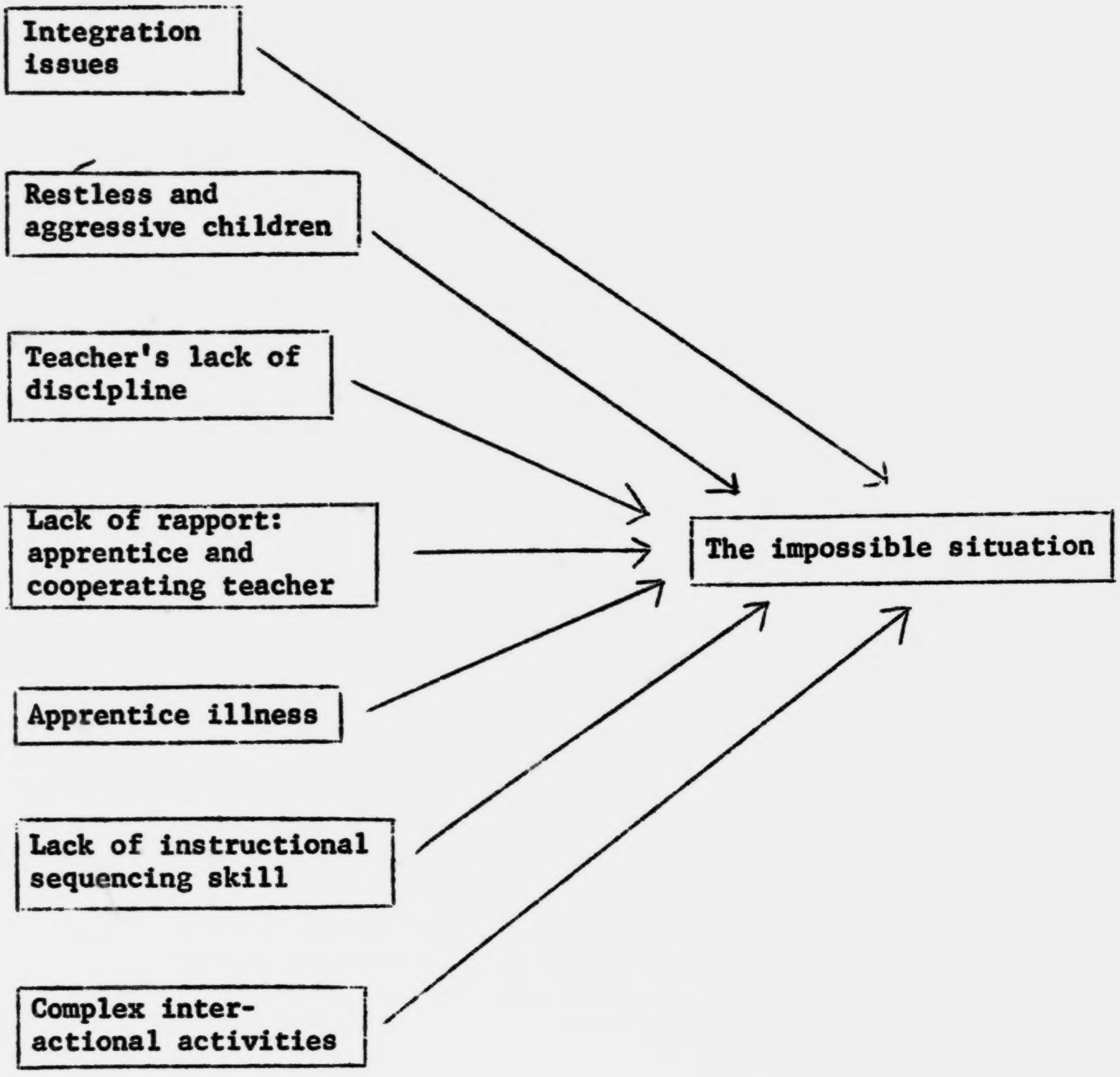
Integration issues
Restless and aggressive children
Teacher's lack of discipline
Lack of rapport: apprentice and cooperating teacher
Apprentice illness
Lack of instructional sequencing skill
Complex interactional activities
The impossible situation

Figure 3.7 Contributions to the impossible situation.

Methodologically, whenever I become discouraged with the project or whenever I begin to feel extremely distant as was particularly true today in that I hadn't been out to see anyone for a week, I always seem to find some aspect which makes the work exciting once again. For instance, today she opened up in a long statement of all the kinds of things that were bothering her. Methodologically it was as though I were a counselor who periodically sat down and had a non-directive interview, much like the old Rothlisberger-Dickson approach to interviewing, and she bubbled with all kinds of things.[8]

The major item that she reported on was her unhappiness with her current cooperating teacher. The gist of this seems to be that the cooperating teacher is quite negative. Her negativism accents the minor, according to the apprentice, points in teaching. There are additional problems in that her cooperating teacher over the last two weeks was perhaps the best that she has ever had in terms of closeness of relationships and being supportive. Also mixed in is the fact that she has a pretty severe cold and has not been feeling well at all this week. In terms of specifics, the cooperating teacher indicates the work in arithmetic should follow explicitly from the teachers' guide. The apprentice doesn't like this because she thinks the kids get bored if it goes this way. (Obs: This is quite a contrast because of all the people, she's as close to a textbook follower as any apprentice I've got.) She commented to me that she probably will be bawled out, that's my word not her's, but it comes very close, by the cooperating teacher for deviating from the lesson plan this morning. She had a good many negative things to say about the teacher's discipline. The kids, she said, were very good today in contrast to the way they usually are. In this, today, there was a good bit of fidgetting, calling out, talking, singing, etc. It's the kind of situation that I personally would find very debilitating and would wear me out. According to her, the teacher just lets this go. My own bias here is that she probably doesn't know what to do about it.

She also comments that the teacher is very punitive with the children on occasion in that she will call them down strongly for "things that are not their fault." This was illustrated with the confusion arising over a couple of the kids and their lunch money today. This contrasts with the fact that she doesn't call them down over other issues that are more significant for the functioning of the classroom. She also commented that the teacher doesn't like the children in the same way that her last cooperating teacher did. On the surface there might not be so much difference, she said, but it's not genuine.

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[8] The appendix explores in greater detail several such dimensions of the participant observer methodology.

The apprentice also was very unhappy about the fact that the teacher apparently finds fault with her in a variety of ways and continually. She has very little positive to say. My guess is that this has rearoused some of the feelings that she's had from her experience in the prior school where I think she got some quite negative feedback about how she was doing. Mixed in with this there are all kinds of serious problems in the supervision for there is very little continuity in anyone who sees what she has done in the past and how she's doing now. In this sense it seems to me that her teaching is much superior now to what it was seven or eight weeks ago.

My guess also is that she has been under some fairly sharp criticism from her supervisor and as the apprentice said, she thought she might have embarrassed the supervisor in terms of expressing the business of the cooperating teacher's being critical rather than positive. She used the word embarrassed as she referred to the possibilities of the supervisor's point of view. That relationship between supervisor, cooperating teachers, and the apprentices is a very tricky one, particularly if the college supervisor is to have any impact upon the people at all.

There's a good bit of problem in the Negro-white relationships in this class also. The teacher commented to me about this in her first remarks before the school started. She has a class that is fifth-fifty Negro and white. She commented especially about the restlessness and the aggressiveness of the children rather than about the ability of the kids. She also commented that she's way behind her usual progress in the work at this point. She doesn't know where she'll be by Christmastime. The apprentice had some negative things to say here also, in that the teacher has the kids separated almost explicitly by race in their seating arrangements and as far as she can tell, to my probing, this is not done on the basis of any instructional program. She talked about the alternatives being hard and soft in terms of how the teacher might behave and they've taken the gentle way at the school. She also commented that the kids don't know how to handle this, especially the Negro children, and that this then promotes even more difficulties. All in all it's a very uncomfortable situation everywhere in the building. Some places are more acute than others. (12/2)

The observer returned on Monday afternoon; the field notes pick up and elaborate the continuing problems:

1:10 Miss Frank tries to introduce a story re birthdays. Discussion of birthdays provokes excitement in the kids and there is serious contagion of giggling, talking out, etc. The problems are centrally with the transported children. Cooperating teacher seems impotent.

1:14 After abortive attempt at discussion she has kids at back of row take out Happiness Hill (p. 28), "A Birthday for Susan."

(Obs: It's very difficult to describe the chaos--kids are humming and singing to themselves, talking out.)

Miss Frank gives a brief introduction and reads aloud. The kids mimic her.

(Obs: Which last week she had spoken about furiously in regard to the cooperating teacher.)

Miss Frank tries to build some interest and meaning re "dancing a jig." (Obs: Kids are young and did not react negatively.) She continues to read and raise questions re "politely," and "U.S." in mail. When she says read the rest, one kid says, "All of this?" Miss Frank mixes her instructions and asks them to attend to her further instructions.

Through all of this the cooperating teacher reads an "Annual Report" and I wonder if it's in regard to her pension fund. She is very upset, nervous, and seemingly almost in tears. This must be a real trial.

1:23 The kids in general seem to be working. One of those who was "stood in the corner" a few minutes ago is now back at her seat but she's belligerent. Most of the "silent" reading is semi-audible. Miss Frank moves about with firm looks and occasional comments.

(Obs: Again as I watch the meaning of the phrase--if you don't have discipline you can't teach--comes to mind. As I watch also I ask myself what might be done. The immediate things which come to mind are: scattering the kids, less group work and more individual seat work; some wide open periods such as music; a highly routinized schedule; more movement to individual pupils; raising questions and giving help; some clarity with the principal re procedures; reduction in rules to minimum with heavy enforcement; repertory of "sure fire" activities; principal aid.)

1:33 Miss Frank asks for four surprises. She finally evokes these. Cooperating teacher out. Miss Frank suggests a game; in effect, a pantomime of packages. A number of children call out. Gary demonstrates. A number of children call out. Miss Frank tells him a number of times to "call only on those who are quiet." The game provokes move contagious excitement. Kids are out of seats; Miss Frank gives multiple commands, threats, warnings, etc.

She tries to rearrange the room with more of kids up front as second child goes up.

1:40 Cooperating teacher back in. Goes into cloak room.

(Obs: Problem more complex in that kids don't know how to pantomime and she must urge them.)

Finally gets a substitute who gives a skateboard demonstration. Someone else does an airplane. Finally the erring one redoes. Miss Frank changes the rules and she calls on people as an aid to get the quiet sitting ones. Gary finally gets an ice skate. Miss Frank changes rules for more than one turn if they are quiet.

1:45 The kids are irrepressible, they wiggle, giggle, call out, etc. Periods of near quiet come in for a moment as they seem to understand the game. Then the tide rises again.

1:50 Game is over. She has them sit. (12/6)

The summary notes continue the discussion:

> It's now 2:35 and I'm leaving Miss Frank's school after an observation and a lengthy discussion with her and some of the teachers. The problems in the class in which Miss Frank's now teaching are as severe as any I've run into. The children seem to come and go and talk out at will. It's very much of a mob-type situation. The teacher, so it seems to me, seems helpless in the situation also. Miss Frank is apprehensive,--better, scared to death--of what's going to happen on Thursday. As we talked in the teachers' room afterwards, the other teachers who happened to be there made comments about the classroom and the severely difficult problem that the regular teacher has with them. Several of the kids are known throughout the school and as one teacher says, "They look at you with hate in their eyes." Miss Frank had talked to Miss Lawrence about the kids and Miss Lawrence had spent one part of a day in the class and remembered one of the boys as extremely difficult. The field notes contain a number of

suggestions of things that might be done. Another comment or two that I think I personally would make is that if I were the teacher I'd go to the Principal, if I were the Principal I would initiate the action myself in terms of splitting up the group and dispersing them around the school and into other situations. There would be some limits on this because at least one or two of the rooms already have more problems than they can take.

It's now 7:00 P.M. and I'm trying to summarize the day's interviews and observations.

Miss Frank's comments and behavior regarding the current class suggests, as I suppose I've noted above, that she's very frightened about what will happen on Thursday. This last Thursday, as she described it, the children just were uncontrollable and were worse than they were today which was in a very real sense an impossible teaching situation. She talked to me in the vein of wanting to know what she could do or how she could handle the children. I wanted very much to move out of the role and to raise some of the kinds of things that might be done. In her case the difficulties that this would involve and the necessary training that she would have to do, it seems to me, are dramatic and important as we've indicated numerous times at various points in the notes. A very real test of all of our theoretical positions it seems to me would be documented in trying to take individuals like Miss Frank and turn them into teachers who could handle situations like the ones that she's got to face on Thursday.

Another aspect of the broader problem is the potentiality of having an alteration in the profession wherein there would be experts who would be brought in to help solve the kinds of problems that are faced--are facing--the teacher and the staff in Miss Frank's current school. Whether it would be a private educational consulting firm or whether it would be a consulting center for field studies such as we have at City University, or some other institutional arrangement, and whether anybody would know enough to be able to staff that kind of organization it seems to me it would be an exciting way to think clinically about some of the problems facing a system like the City public schools. That kind of clinical practice would be most interesting and most fascinating. The context would require shifting norms in the profession at large and in most buildings that each teacher is supposed to be able to handle her own situation. In this current classroom, it seems to me that the teacher is near enough the end of her own rope that she would welcome some outside intervention that would relieve the tremendous anxiety that she seemed to be expressing as I watched her withdrawing into her desk in her cloakroom today. Several days' observation spent in the classroom and a careful noting of some diagnoses of what the problems are and then the building co-operatively of some kind of plans for resolving the difficulties and then looking at the consequences on other parts of the system with the resolutions and moving jointly in conference with the Principal and the teacher in the context of a problem-solving or decision-making orientation with the provisional trial aspect would seem to be very appropriate. It would carry some weight to have an impartial outside observer making suggestions as to how it might be organized or how it might go and then throw in the weight of his position behind that to ease the burden of someone emotionally tied-in with the situation making the decisions.

An interesting analogue here concerns the behavior of an athletic coach in the same kind of context. As I watched a football game this last Sunday and as I took part as the coach of the "Red Dogs" in the elementary school soccer league, I would see some things that the boys in the soccer game could well talk about in terms of what they might do in such things as scoring play, throwing in the ball from out-of-bounds play, etc., and the kind of practice and work that would need to go on to make that function smoothly and in some kind of coordinated performance. In the same way, as a number of us talked about the offensive tactics of professional football team, it seemed unimaginative in several ways, and perhaps principally in that when particular attacks were being tried and were not working there seemed to be little insight as to why they weren't working and what might be done in contrast to run an offense against the particular team in question. In the same sense, a consultant to an educational organization like Miss Frank's classroom should be able to function in a most helpful way. (12/6)

The "Thursday alone" phenomenon occurred with a vengence this week with the apprentice.

1:27 I've been here about 10 minutes. The kids remain wild. She has taken one child out. Runs through a series of techniques, threats, etc. Tries to start and begins "oral news events" lesson. Very difficult to get the kids quiet so as to hear.

(Obs: This kind of activity seems most inappropriate. She has kids up who don't talk loudly enough. Has them choose which gets into choice problems, etc.)

Next little boy describes a bird his dad has. Comes out of cage on finger, bit him. To which one of kids responds, "Goody,goody." (Obs: This typifies the noisy calling out kind of behavior.)

(Obs: Raises question about the apprentice's job when the teacher has limited control.)

Kids move about "playing musical chairs."

(Obs: Raises question re running teacher out of the room and the correlated teacher phenomenon in terms of survival.)

Kids continue to have difficulty getting the idea of the "news report." One of girls, Johnny, tells about father throwing little sister in air, apple getting red, etc.; she rattles on and on. She is quite funny with a is for apple, a is for apple, etc., ...r is for rose, etc. Kids laugh and attend. Tension drops as Miss Frank engages in dialogue with her.

1:40 Calls on Keith who talks about river and arch, etc.

(Obs: Amazing amount of home and family information gets communicated in these sessions.)

Kids explode in between calls and Miss Frank can't move them along. Alfrieda tells of visit to uncle's house and trip to another town. Again, as she sits down people call out and move about.

1:43 All in right seat. I'm taking attendance. (Flow keeps getting broken.) Another girl, Sherry, starts re father's trip to Chicago to see sick sister.

1:48 No more stories. "I have something different. Going to work on spelling." She passes out slips of paper. Doesn't use monitors. "I'll pass them out. It goes faster. . . .This is going to be collected after. . . what happened to my rows over here? . . .You don't know what to do yet so wait a minute."

(Obs: Gets distracted into a moving of rows and lesson bogs down.)

1:52 Just as she about gets them settled, a messenger is in and they dissolve again.

(Obs: The restlessness, the aggressiveness, the noisiness, the inattention, etc., are as severe as I've ever seen.)

"Write your name at top." This brings, "It's already at the top," plus Alfrieda out of her seat, pencils tapped and dropped, etc. "I'm going to read a sentence. First of all number your papers, etc." (Obs: Confused instruction.)

(Obs: The kids have no inner controls whatsoever. If she shows them a paper, a girl like Johnny screams out "I can't see!!")

1:58 "Put numerals to 8. . . .Only one person in this row." etc. "I'm going to give a sentence and I'll tell you which word to write." She gets "The man" out and everything goes chaotic.

2:01 Finally sends Anthony out. "The man has a big hat. Write man."

2:03 "Has." She again takes too much time in between and loses those who are with her. (12/9)

The observer's additional summary notes were recorded at 3:30 P.M. on Thursday afternoon, the ninth of December.

The hour I spent in the classroom from a little after one to a little after two is barely reflected in the field notes themselves. In that period of time she had an oral language lesson in which the children presented news items from their own experience. This was tremendously complicated and tremendously difficult in that many of the children didn't understand what was to be given and they started to tell stories such as"Three Billygoats Gruff." Miss Frank didn't know how to handle them, and didn't know how to gain any kind of control over them, didn't know what to do. At only one point, when a girl named Johnny was giving her account, which was quite funny, especially to the children, was there any semblance of listening to the report, any semblance of interest, and semblance of worthwhile educational activity. Later Miss Frank shifted the lesson to a spelling test. She wanted them to write eight words. She got two words done. The difficulties seemed to lie partly within her for she moved too slowly and unskillfully, and all the kinds of things we've noted in the field notes on other occasions were quite visible; and with this particular group of children who have the teacher on the run generally and who are very unresponsive to the usual demands of the school, it made the hour a living hell for her.

As I talked with her afterwards her first remark was something very close to "Oh, Dr. Smith, I'm so discouraged." She then went on to comment that the children were much better this morning; while not perfect they worked along for a while.

Actually her story seemed to shift several times as she told it and re-told it and it's very difficult for me to know precisely what happened. She has hardly taught a lesson all day. She did comment that Alfrieda had not been out of her seat at all in the morning and that Anthony was well-behaved and helpful. This afternoon both of those children were totally uncontrollable. Alfrieda generally in a very pleasant, move-about way, was just in and out of her seat and in and out of other people's business constantly. Anthony took on a beligerent, hostile look and seemed as full of hate as anyone I've ever seen. Glyn was similarly unresponsive. Two or three of the boys were making fun in one way or another all the time. Johnny, one of the girls, made comments incessantly and was very volatile and uncontrollable. All of these children were Negro children. One of the white children whose seat was next to the desk, similarly was in motion all of the time. He played with a magnet most of the time and would move about and talk, call out, etc.

The notes from the other day indicate some suggestions on what might be done to alter this situation. The seating arrangement where the two rows on the East end have all of the difficult Negro boys it seems to me, as it did to Miss Frank, to be a gross error. I would have wanted to see them scattered about. Miss Frank commented that the teacher kept them that way so that they could compete. I didn't quite understand this but as I quizzed Miss Frank I'm not sure she understood it either, for it seemed as though there were two possibilities: you can compete as a group against the other group of children, or be near people with whom they could more nearly measure up with and compete.

In terms of preparation for today, Miss Frank has taught many fewer lessons with this group than with any others that she's worked with, according to what she's said. She also has not talked with the Principal at any length, and yet later when I talked with the Principal she had some very strong beliefs already about Miss Frank and her limited competence and the fact that she "would have to learn the hard way." She talked to me as though she, and perhaps what she meant was the teachers with whom she (Miss Frank) is working, had talked at some length with her, but can't seem to get to her. (That's a very interesting kind of observation for many weeks ago in the notes I've commented "there are so many things that are wrong with the way she teaches that to try to tell her about it would be an impossible task, one almost needs a picture.)

Miss Frank had not talked, from what she said, with the Principal at any length, nor has she raised in much detail with her supervisor what she should do. Her supervisor had com-

> mented that she knew the cooperating teacher from many years ago and that she was not a strong teacher, especially in regard to discipline. To my direct questions today Miss Frank commented that last Thursday was as bad or worse than it was this afternoon. The notes should contain a comment from the other day which Miss Frank made, that it was very, very bad on Thursday and this was part of what she was scared about when I saw her on Monday or Tuesday of this week. As I reflect on the situation now I think the kind of orientation that I would make to the apprentice and to the situation would be to call a spade a spade within one's own limited knowledge and perception and talk with the Principal to the effect that "I know I'm going to have a difficult time and the way in which I hope to handle things is this, this, and so forth, and I'd like to know if you will back me in this way, that way, and all other ways." I think I would try to settle that before Thursday arose. And I think as the supervisor I would want a rapport with my apprentice so that she could tell me and the two of us could talk to the teacher or talk with the Principal. I think basically in that group I would have begun to remove students and ultimately had five or six out of the room because there were the four rows, except for Johnny and Alfrieda, who were willing and ready to work. Prior to that I would have separated the kids about the room and moved them all around. Third, I would have had a good bit of individual seat work. Fourth, I would have stayed out of most oral activities, especially those that had any elements of confusion and difficulty about them. Fifth, I would have had prepared a number of lessons in each of the areas and would have been prepared to have short tests, such as the spelling test that Miss Frank did have. Sixth, I would not have used the recess threat and had them all out of the room for the total period of time. Seventh, I would have begun the approach right from the beginning in the morning and made a clear distinction between me and the cooperating teacher. Eighth, I think I would have held some kind of clarifying discussion about the nature of the problem and about what I was going to do and what was going to happen as soon as the first incident had arisen. Ninth, it would have been a brief discussion. Tenth, I would have scheduled my activities tightly beforehand and known exactly where I wanted to be and where I wanted to go with each of them immediately. Eleventh, as soon as the activity had begun I think I would have pushed hard to keep it going and to make it as interesting and exciting as possible. Twelfth, I would have moved about the room a good bit more and focused in on the activity by giving the kids help on all the problems that they had.

The observer, as an outsider, speculated extensively on how he might have moved in this particular situation. The range of alternatives available seemed quite broad and hypothetically quite potent. As we summarized them in Figure 3.8 they suggest a sequel to the prior Figure 3.7. Also they suggest a model of viewing teaching as decision making (Smith & Geoffrey, 1968) or as an inquiry process (to which we attend later in this monograph).

Insert Figure 3.8 about here

The summary notes indicate the continued puzzling over the events as they occurred to the observer. The accent moves toward an analysis of part of the reasons action suggested in Figure 3.8 was not undertaken.

> These notes continue the speculations from the observation of the four schools yesterday, especially with reference to Miss Frank's school.
>
> One of the major ideas which comes to mind is that the "transition school" should be one of the next major participant observation projects undertaken. This special problem which exists here as the ground shifts under the Principal and the teachers is most intriguing. As I may have indicated in the notes yesterday, the Principal sees some gross differences in the schools that have lived with the lower socio-economic problem for a long time and schools like her's which have not. She is not ready to give up "without a fight." Similarly her teachers, and I think one of her primary teachers with whom I've not been involved, commented the other day that she refuses to use corporal punishment and that there's no end to that. This seemed to be the intent of the Principal also who has developed a way of working with middle-class children over the last decade or two and who doesn't want to abandon what she sees as her ideals and her broad philosophy of education. In part, the consequence seems to me to be a situation where the discipline problems occur and recur and raise so much difficulty that one has minimal time to teach. It becomes easier to see how the schools with these non-voluntary kinds of kids resort to this kind of control in an effort to solve the problem and solve it quickly and dramatically and as permanently as possible, and even though this drys up a good bit of the initiative of the kids they then can spend their time on academic tasks, routine though some of them may be. There is a question in my mind as to how the choices run and whether they're between a punitive and non-punitive or whether there are options such as those that seem to exist broadly from our analysis of the Ghetto Project.[9]

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[9] This is a reference to a feasability study (Charters et al.) which did not receive funds.

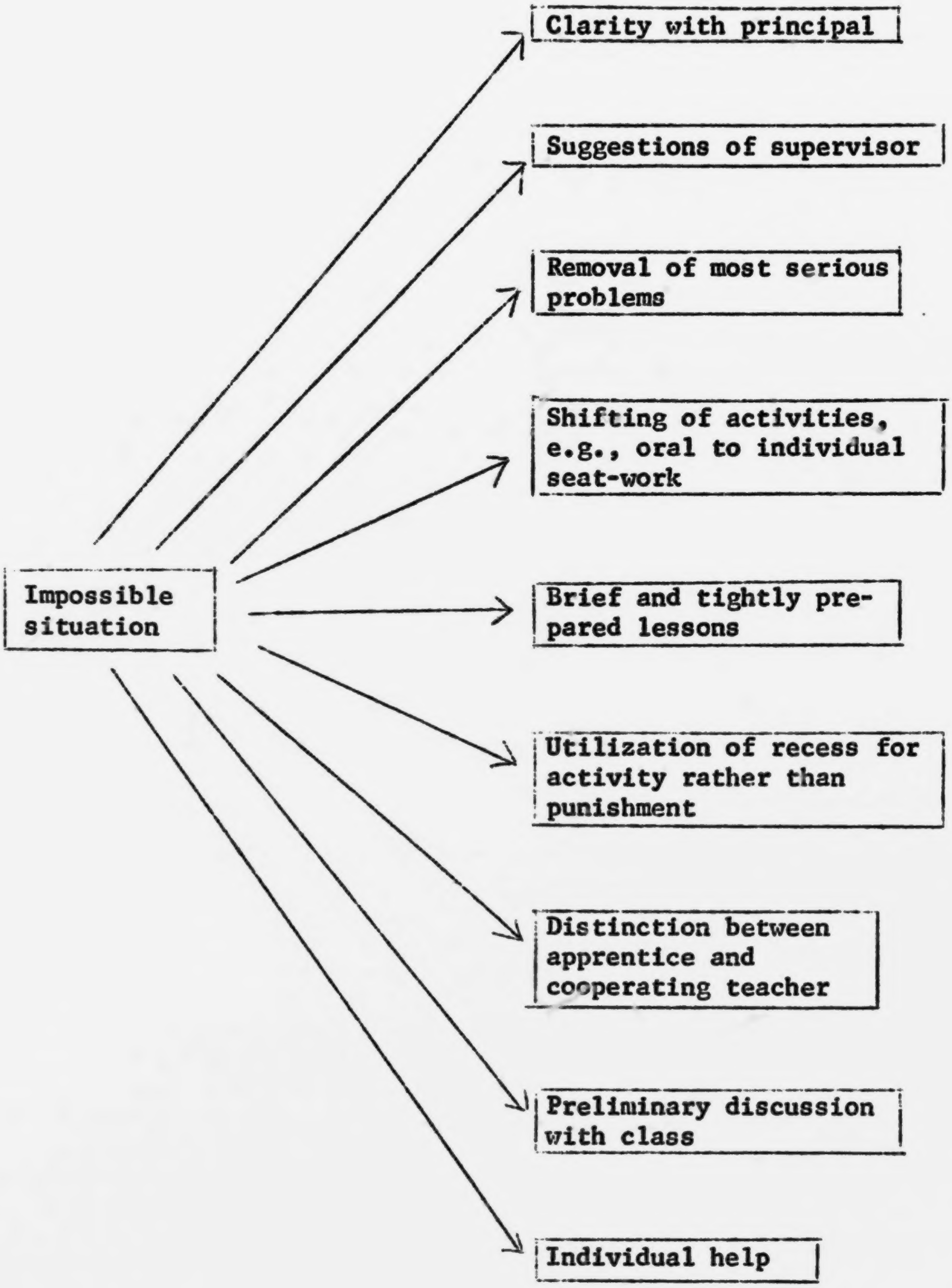
Impossible situation
Clarity with principal
Suggestions of supervisor
Removal of most serious problems
Shifting of activities, e.g., oral to individual seat-work
Brief and tightly prepared lessons
Utilization of recess for activity rather than punishment
Distinction between apprentice and cooperating teacher
Preliminary discussion with class
Individual help

Figure 3.8 Alternatives to the impossible situation.

Some of this seems quite variable and those kids who are willing to go along and try for the main accomplishment are praised and lauded and those who do not wish to go along receive very dramatic and direct treatment.

Another problem which seems to flow out of the latter is the relevance of the two-by-two program for teachers and apprentices who are "not strong." I think particularly of Miss Frank here, for she is in an excruciating situation which is very punishing to her at a very basic level. The "I am so discouraged" comment of yesterday was said with such feeling and such intense emotion it seems to me that she's being hurt in a number of significant ways. One might argue more disinterestedly that the system is just selecting its teachers. In this sense she isn't going to master the training and she's on the slow, painful, and difficult route of being screened out. In contrast one might well argue that the situation may be producing what in other situations we've come to call "the embittered old maid school teacher." What I'm saying I think is that if she could have been identified early, and from the notes my guess is we could have picked it up in the first time or two, then she should have, or could have, been placed in a self-contained classroom with a single teacher and a much slower and much more carefully structured and built sequence developed for her rather than what in some ways amounts to "throwing her to the wolves." However, the whole notion of training vs. screening and the emphasis that must be put at one point or another on the latter, suggests that the system may have some liability this way also. We haven't considered that at any length as far as I know.

Another kind of phenomenon needs discussion--the degree to which the brief two-week periods, and they're really only eight days as they go from Monday to Thursday, and Monday to Thursday, are interrupted for other kinds of purposes. For instance, holidays such as Thanksgiving, holidays such as the teachers' meetings, and two days with the social worker intrude on their regular class assignments. Similarly, almost all of the apprentices, and I think here of three of mine, everyone except Mr. Jennings, has been pulled out of his regular assignment some, and on occasion to a great degree. The specific case in point is Miss Charles' comment yesterday that she had spent all day in a first grade room and had not been in the class on Wednesday when she's supposed to teach all day with the kids prior to coming in by herself on Thursday. She found none of this, or almost none of this, in her first school and she's been victimized by it consistently in her second school. I can remember one day I went up late in the afternoon and she was to take someone else's class and now in this group she lost a day and from what she said there were several other points along the way.

This happened a good bit to Miss Lawrence also as teachers were pulled out of her first school to go to the new math program. I'll have to check definitely on Mr. Jennings and Miss Frank in this context.

To return for a moment to Miss Frank's school. My conversations with the Principal indicate that they have no contact with the sending school regarding the transportees. They have no notion as to how these kids have been treated there and what the building rules are. There is consequently more than just the "six hours of living in a different culture" which the Principal described, but further confusion concerning the differences in schools and home and community, which would seem to me to confound the problem seriously. She also mentioned her experiences at the Van Buren where she had been Principal before and where she had worked for several months before the arrival of the first group of transportees. Apparently there was considerable hostility in that community. This school apparently had much less of that kind of preparation for their Principal was just retiring and hadn't wanted to open up a whole big battle.

The Principal also told me that she at one time had had meetings with groups of students about building manners and building courtesy. She's in the process of reinstituting that in her school here. Apparently these meetings occur on Monday mornings. This strikes me as another beautiful illustration of the same kind of behavior that Geoffrey exhibited in his class where he tried to develop beliefs into normative systems with the children.

Another item that the Principal of Miss Frank's school mentioned to me concerned the current cooperating teacher. She has just a few years before retirement and even though she hasn't been a "creative" teacher over the years the Principal feels that the school has a responsibility toward her. Even though she's a "weak link" in the school's program you've got to live with her and work with her, you can't just eliminate her. The Principal feels, it seems to me, a tremendous moral responsibility here. She also seems to me to be a "tower of strength" as she absorbs the blows of criticism upon the school.

At another point in our conversations we talked some of her prior school and the fact that at one point they had some six or possibly eight buses of transported kids in the school and the transported teachers were so out of keeping with the teachers she had in the building, and I think essentially because they used very punitive techniques with the children, as in the sending schools probably. There apparently was a major show-down, or at least this is what I gathered from talking with the Principal, and she indicated that, and I don't know when in the year it was, but now was the time for decision and they could either all go and take transfers or else they could all stay and shift their procedures and if they didn't shift them she would turn in "unsatisfactory's" for all of them. My guess is that that story would be a fascinating one in and of itself. Apparently, from her remarks, there were some major shifts that took place and the year progressed much more happily and there was trading of classes, trading of demonstration teaching, etc. throughout the building. The Principal commented explicitly on the fact that the kids were academically way behind the Van Buren children. There seemed to be implicit comments about the teachers also in the sense of their learning a good bit about other ways of handling children and other ways of teaching. In the Principal's words, she had some "crackerjack teachers" originally in her building. This could well be a significant aspect of the current situation in Miss Frank's school, for many of the teachers are a good bit older and near retirement and many of them don't have the resiliency, and that's another concept that we need to look at, to handle the new flood of problems.

The Principal also told me that there was a long list of teachers wanting to transfer in to her school. She also said that she didn't think most of those people realized what was happening in the school in terms of its transition. They think of it as one of the older, elite schools that used to be almost all college-bound rather than what it is now.

Another item that keeps running through my mind is the need for some kind of district-wide approach to the solution of some of the problems. The weekly staff meetings of the kind that exists in the Ghetto District from our analysis of that project, suggest that the Principals in the district of Miss Frank's school would do well to have a similar kind of organization. The fact that the Principal is autonomous, and Miss Frank's Principal told me that yesterday also, is a great boon in terms of freedom but it's also a tremendous handicap when the problems are broader than the individual school. If, as we've argued on other occasions, the social reality is the major part of the environment in which people work then some attention to that reality would seem to be imperative. In the present instance the Principal has only her observations out of her experience in one or two or maybe three schools and the occasional comments she gets from infrequent and irregular meetings with other Principals and the District Director. If something like indecisiveness which we've talked about, in teaching, is also critical in running a building and if indecisiveness can be lowered by having a firm, clear set of norms, the social reality, then you have the possible chain of reasoning that suggests the importance of the weekly staff meetings. Beyond the development of decisiveness and the commitment of people to the reality, there's also the possibility that the alternatives suggested would be quite concrete and quite viable and quite ap ropriate. Consequently, not only would the decisiveness be strengthened but also the options would be those of increased possibilities of reaching the goals. Naturally, this would depend a good bit upon the kinds of people who would make up the principal group and those with whom you could work and those with whom you couldn't. My guess is that it would take a long time to get welded together a unit such as exists in the Ghetto District.

It's now 9:20 a.m. I'm about to go down to the City Teachers College for my weekly meeting with the four apprentices.

I've just come from an hour's conference with the four apprentices and a longer individual discussion with Miss Frank, who still had much to say about the experiences yesterday.

I might comment at some length on Miss Frank's behavior in that it suggests several important psychological processes. First, she did not open up and talk very much about the tremendous problems she had yesterday as we talked among the four of us. The discussions were free enough that she could well have done this if she had desired. Later though, as we walked up the stairs and had a chance to converse alone for a few minutes, she talked incessantly and I had a very difficult time pulling myself away after even 20 minutes. This suggests to me the critical importance of these raw, concrete personal experiences as they have impact upon the whole self-conception of the apprentices. The experiences are meaningful in the sense that they hurt and they are joyous, they are painful, and they are satisfying. Also, related to this, and somewhat independent, is the notion that Miss Frank has been "working overtime" since yesterday trying to build some sort of balance, integrity, consistency, into the experience. It makes for a whole array of very fascinating statements which vary in the degree to which they are consistent and which highlight and deny parts of the reality.

A related point to both of these concerns Miss Lawrence's behavior in the group discussion. Today she was all peaches and cream and everything was happy about her cooperating teacher. The notes, I think from Tuesday or Wednesday, are full of extreme emotional negativism about this cooperating teacher. Today she had built a picture centering around the woman's problems in that she thinks she has cancer and Miss Lawrence thinks this is a psychological problem rather than a physical one. But there was cloaked in all of this very strong overtones of "Isn't the world fine? Isn't it grand?" and only once or twice did she slip out of that peaches and cream role. On one occasion it came as she talked about the kind of behavior she's getting from both the older girls and the older boys as she goes down the halls and as she's in the building. Apparently thev make comments as to whether she will talk to them or whether whe will say Hello, etc. She doesn't know quite what to do and she's very apprenhensive about when she has them alone. She said she intends to talk to her Principal about them. Miss Charles raised the question at another point about her conferences with the Principal and Miss Lawrence said she has had none, which I think is true formally, although she had one brief discussion. Miss Charles picked up the point and saw a major bit of discriminatory behavior in that she had lengthy and regular conferences with the Principal. I think my observations here are valid for even though I've raised the same kind of notion in the notes I haven't been thinking about it and Miss Charles' reaction was very much of a nonplussed one when she found that Miss Lawrence hadn't had the same kind of talks that she had with the Principal. Later we'll have to come back to that one.

The group didn't move along real well although it caught fire several times. I still don't know quite what the problems are. I think partly it's the racial issues are so salient and so important and the people are still very inhibited although much less so. This suggests that the continuous going back after the problems, talking about them, putting them into context, and so on, may be quite fruitful over the long run. Also it seems to me there is still difficulty centering around Mr. Jennings who basically just isn't interested in talking about anything and is almost totally nonanalytic and in the sense of he gets little enjoyment out of it. Also, Miss Frank had so many very important problems that were bothering her that she didn't want to raise. Finally, the setting is inappropriate in a number of ways; for instance, we had students who came by who in effect kind of wanted to join us and were interrupting things, and second, we had everybody concerned about the exam tomorrow when they spent all day taking the National Teachers Examination. And we have in Mr. Jennings someone who doesn't enter into discussions easily and well and kept dragging red herrings through. Also, in Miss Lawrence, who persists in wanting to be at the center of the stage and as long as she is there's no problem. Then Miss Charles who so much wants to get involved in intensive, important, social discussions and yet she can't get the other people to listen and to move with her. It's all very frustrating.

To return for a moment to Miss Frank. She commented at length about a number of things: (1) she inquired about what I was saying with the Principal; and (2) she commented that she has some real questions about the cooperating teacher in that she's a southerner and Miss Frank thinks she may have some latent prejudices of this kind that the kids can detect. (3) She told me that several of the children have muttered that she always calls on the white children. (4) The seating arrangements and the competition came up again and Miss Frank sees this as another real problem and I guess perceives, although she doesn't have firm evidence, that the competition is between the two groups rather than within each group. (5) Miss Frank told me also that Alfrieda is a local kid and doesn't get bussed-in with the others. She commented that the child is very hostile, especially toward the white children although some also toward the Negro children. She says that there is no easy relationship between the girl and any of the other children in the classroom. As I think about that now it strikes me very much like some of the kinds of things at the Washington School and the local Negroes who were caught in between. That issue of the kids caught in the middle is one that deserves considerable analysis in a special project.

The problems in the conflicting sub-groups within the instructional program came up again, for Miss Frank is most hesitant to talk with any other teacher about what goes on in her cooperating teacher's room and she is hesitant to talk to the Principal and even the discussions she has with her supervisor will not truly reflect the reality. In this sense I suppose she's talked more intimately with me than with anyone else. This re-raises some of the methodological questions and some of the advantages of being outside the chain of authority in not having any responsibility. It suggests that playing other kinds of roles in altering and working in the situation will then change and bias the kind of information that you get.

Miss Frank mentioned that the teacher to whom she goes next has a heart condition and is a frail, older woman. She hasn't seen anything of her because she only makes one trip up the stairs each day. The teacher she has after that is the one with whom Miss Lawrence apprentices and is the one who is so boring according to Miss Lawrence. This suggests a kind of interesting month in terms of the two people with whom Miss Frank will work.

I raised at some length the problems of the two-by-two situation and found a good bit of diversity of opinion. At this point Miss Lawrence thinks she would much prefer to spend the remaining part of the semester with one teacher. Mr. Jennings

> doesn't think he could stand more than two or three weeks in one room, especially if he ran into someone in one of those rooms with whom he didn't hit it off. Miss Charles has mixed feelings in that she would have loved to have stayed in one or two of the rooms at the Truman. Miss Frank thinks she would prefer to go with the two-by-two. Each of them has had such a dose with at least one teacher who was so bad in their eyes that they would be frightened of getting caught that way.
>
> In terms of the changing schools there seems to be some general feeling of not liking that so much. Most of them have had pretty hard adjustments. (12/10)

The Apprentice's Personality and Behavior

The complexity of human personality is legion. One has only to scan a recent text such as Guilford's Personality to see the hundreds of dimensions considered in the scientific study of personality or to talk to a neighboring parent who speaks of personality principles as though they applied only to her unique child. "It all depends on the individual child" is the characteristic phrasing. In our intestigations we began to see the apprentices as possessing some problem or talent which personified for us the impact of personality as it became interwoven in the classroom and the objectives of the apprenticeship experience.

Individual differences in major problems

If ever there was an important idea which has turned into a cliche, the issue of "individual differences" would qualify. We were struck, as I suppose is everyone who comes to know a person intimately, with the subtlety and idiosyncrasy of each individual apprentice. As we coped with this flood of stimulation we began recategorizing and labeling our people. In an offhand way we called them "the competent one," "the anxious one," and so forth to capture the bolder strands in the wealth of detail. Soon the bold strand became "the major problem." This kind of thinking reminded us of a paper by the educational psychologist Percival Symonds, published some years ago as "Education for the Development of Personality." After an intensive series of case studies of forty adolescents, he commented:

> As each of these cases was reviewed the question was asked: What can the school do that will be of the greatest aid in furthering this pupil's personality development? Naturally, different pupils would apparently profit by different features of school life. . .(p. 163).

He then sketched a dozen major problems and correlated teaching emphases such as social participation, freedom, and firmness which fit one or more youth.

We would hypothesize that one consequence of the "major problem" is that its solution takes precedence over other items to be learned. For instance, as we have already indicated one of the apprentices, Mr. Jennings, a big, husky but gentle six-footer, spent most of the semester learning how to relate and to assert himself with young children.

Although the major problem in Miss Charles' teaching was different from Mr. Jennings', it also had a relationship to aspects important and central to her personality makeup. The notes record it this way:

> One of the major issues which seems to be right at the heart of her schema concerns the language problems of the children and the kinds of things that might be done about it. In a sense this was the big idea that she was on, in contrast to Mr. Jennings' statement yesterday where the big event in his life was discipline. The language problem as she talked about it has other aspects: first, she has a minor in English literature and is very much interested in this area; second, she's been involved in dramatics and is interested in and noted early the cooperating teacher's ability to get these kids to dramatize things like "Little Red Hen," which I saw this morning. As she observed this she wanted to try it herself to see if she could do it. Later she did it quite well. She also has had speech problems of her own and currently seems to have a lisp. She commented that she had stuttered as a child and that she had overcome this. She spoke extensively on several occasions of "learning self-confidence in speaking." Also this cooperating teacher apparently puts considerable emphasis on language. This would follow pretty clearly from some of the field notes that I made this morning as I watched her teach one of the lessons and my immediate cueing into the development of the verbal repertory of these children. (9/23)

Miss Charles differed also in that she had major concerns with aspects of integration and this vied for prominence throughout the semester. Later episodes in teaching poetry to "uninterested" eighth grade boys are part of this picture also. This "large idea" or major problem contained several other dimensions of note. It had a positive quality in contrast to Mr. Jennings', for she was building on strengths and elaborating a series of successes. Mr. Jennings' problem, in contrast, was survival oriented; he had to overcome limitations which threatened his very existence. Also Miss Charles built upon more ultimate goals--language learning--whereas Mr. Jennings' problem with social structure tended to involve the setting or context which would permit and facilitate teacher instruction and pupil learning.

Analytical thinking

Some of us who are more preoccupied with educational research and building a rational foundation to underpin teaching behavior may be inappropriately generalizing our analytical bias. One morning after attempting to get an apprentice to sort out the hypothetical reasons for differences in the behavior of the children, the observer raised the question of the degree to which the trainees were analytical.

> While he didn't comment at this point at any great length about the differences between the first grade and the third grade teacher, he did note that the third grade teacher was much more "strict." In his words he described her as more "militant," which I judge to be more military. She apparently gets on the kids immediately when there is some kind of infraction and tells them to cease and desist and to do a particular kind of thing. In general the kids respond, "somewhat reluctantly," in his eyes. In asking how this came about he thought the kids were older than the first grade kids and also that she was a regular teacher and also older.
>
> As I talked with him one of my impressions of him, the apprentice, is that he's not an overly analytical individual and that he has some general principles of common sense, how to do it and how to get along with the children, that he's gradually working his way through organizing and re-organizing into what will one day I suppose become his style. At heart he seems to be a very friendly, good kid. (9/22)

The degree to which motives for analysis, intellectual skills in analysis, cognitive complexity, and general intelligence are interwoven is not known. This particular apprentice seemed to have both little concern and little skill. In others the motives and skill seemed to fall in all combinations of high and low, suggesting the correlation was not high. Beyond the discussion of the implications for high or low amounts of "analyticalness" on classroom processes and pupil learning, we are concerned about the role of teacher training models and the phase of the teacher career. For instance, a low or non-analytical teacher might profit by tuition based on the psychomotor model while a high analytical apprentice might profit by the approach based on inquiry. Similarly, the preservice training might lead toward the psychomotor model and the inservice training--once survival has been assured and concrete perceptual images built--might favor the inquiry model.

Further speculations arose (the next day) as we talked more extensively about a specific latent dimension of the "2 x 2" program, the observation of teaching.

> He's made several derogatory-type comments about just sitting and observing and that he would much rather be doing some of the teaching. Apparently here we have the phenomenon of students such as Mr. Jennings, if he really be this way, who are not analytical and who find that the one day observational,

> analytic, introspective orientation is too much and that they would be much better off moving directly into the experience. It's not so much that they know it all to begin with; it's just that that particular form of learning about it is not the modality that is useful. This, it seems to me, can be contrasted with people who want to have a pretty clear notion of what it's about before they jump in. Presumably these two styles of orientation toward problems could be distinguished with some kind of paper-pencil instrument and instructional lessons and procedures be varied according to this. At this point this looks like a very significant lead in moving toward more quantitative research. That ought to be hauled out and made into somebody's dissertation. (9/23)

Later in the same week, while reading the notes of the apprentice, the same issues came to the fore and led to much broader speculation.

> In the notes also there seems to be very little by way of abstraction and generalization to broader concepts. This raises the idea, which I may have talked about earlier, that some discrimination among students in terms of ability levels and the correlated approach be it concrete vs. abstract and the consequences of this on their interest and satisfaction in instruction as well as on their ability to translate this into specific teaching practices and into some general notion of teaching skill, seems to be a very important problem needing investigation. Related to this is the general issue of how one will conceive of teaching, as a profession or as a craft. In turn, this should lead to distinctions in the training programs. The data derivable from the study of other professions and the prediction of success in medicine and law,and the correlated kinds of training and internships these people experience, needs to be looked at very carefully. Part of our literature review in theoretical summary might well be an attempt to draw together the threads of the varying research in these different professions. Actually that probably should be moved to fairly quickly. Related to this is the work by Edgar Schein at M.I.T. on the early experiences of people trained in business management, Merton's work on the student physician and Becker's work also. In the area of law Dan Lortie, among several others, has relevant work. (9/27)

Teacher interests

The concept of "interests" has a peculiarly muddled history in education and psychology. The major quantitative breakthrough has been in inventoried vocational interests. While the rationale for the success in this area is not clear, some speculation has arisen that the structure lies in the object of the interests, the occupational world, rather than in the individual and his idiosyncratic learning history. In our notes we found apprentices who were "interested" in some subjects and not in others. For instance, Miss Charles "liked" literature and Mr. Jennings "liked" math. When they taught other subjects the implications began to arise. One set of notes captures this as well as aspects of the broader point of view of the City Teachers College program.

> He also wanted me to see something besides a reading lesson because it's "kind of boring." It's interesting that the observations I have from the field notes themselves contain the implication that he seemed as though he were not caught up in the story in the same way that one of the other apprentices was. Apparently this is true in that he doesn't enjoy the reading as much as some of the other subjects. Math was a minor for him and he's been especially interested in arithmetic.
>
> One of the teachers who came down later was the first teacher Mr. Jennings apprenticed with. She's very sold on the City College program and thinks it prepares the teachers very well. They know the materials, they know the procedures, they know the forms, they know the records, they know the Big City system and they know the way that other teachers who come in don't know it. Also she's very high on the two-week aspect in that it acquaints the students with every age and mentality level so that they don't feel totally lost when they first go into a class.
>
> As I think about this, the issue may well fall around some notion of general versus special methods as they relate to grade levels and some notion of the generality of human nature and how one can speak to that at different grade levels.
>
> Some of the comments that I wanted to make earlier about Mr. Jennings' boredom with reading may well be more a relationship with the young children than with the subject matter per se. The little kids just don't seem to be the ones that he will want to, and be able to, be involved with significantly.
>
> That also might well be a strength of this program in that you do get a pretty concrete picture of each of those levels.

Enthusiasm

As we observed our apprentices, we often contrasted them and the situations in which they worked. In this instance, we find Mr. Jennings who seems on the lower half of the enthusiasm continuum:

> 1:35 I come in just as a discussion of room representative is terminating. About 42 kids in room. All facing straight ahead. The cooperating teacher takes 18 for arithmetic and Mr. Jennings has 24 for reading. Asks a couple of review questions and sets reading task--question re bike. They are to read pages 53 and 54. Mr. Jennings sits in the front. In contrast the cooperating teacher moves about and checks each kid who turns around or has his legs crossed. She does have a martial quality. The room is deathly quiet. It is also very large and there is no feeling of unity in either of the two sections. On the board is the "language lesson"--"Send the bad boy home."
>
> Mr. Jennings begin questions about story. Kids seem to comprehend well. They volunteer appropriately. Mr. Jennings calls them by name. He then has them read next two pages about the "peach people" that Jim and Jody made. "Did they use ripe or unripened peaches?"
>
> Through this, Mr. Jennings seems a little stiff and unable to be captured by the story or the children. He doesn't have the easy enthusiasm which Miss Charles seemed to generate.
>
> 1:47 The cooperating teacher works on records at her desk.
>
> The class is comfortably cool with a breeze coming in from the west. The room also is off the truck and traffic arteries and there is no competing outside noise.
>
> 1:50 After a half-dozen more specific questions, Mr. Jennings selects three to come to front and read the parts. Almost everyone volunteers for this. The kids have more trouble finding their parts than in reading itself.
>
> He switches the trio at each page. Again all but one or two volunteer.
>
> Later he varies and has individual kids come up and read most of one page. One boy does very well and quite expressive of the feeling of the story. Mr. Jennings compliments him. Gives a number of others turns.
>
> 1:55 Concludes on "find surprise tomorrow." "Take out arithmetic books, page 26, numbers 1 and 2." (9/23)

Differential accomplishment

Individuals in a learning situation vary in the speed with which they accomplish the objectives of the program. We speculated on Miss Lawrence's case of more rapid movement, alteration of experiences and possible shift in objectives.

> Miss Lawrence also made a number of comments concerning the possibility of--concerning the joy with which she will see the end of the apprenticeship. This, as I listened to her, seemed to be two-fold: one, the problem of teaching in this school which is a most disquieting experience for her, and second, the business of having her own class and seeing what she can do with them. This is the first real strong statement of this kind that I've heard. It's quite analogous to the feeling that many of our graduate students seem to get as they move into their program and seem to be hearing and seeing some of the same things coming around again in their courses and they want to get out on their own and try their own research ideas and their own point of view. Miss Lawrence's comments, however, centered explicitly about not knowing whether the kids would respond to her the same way if she had them every day all the time and having some ideas about what she wanted to do with the subjects and what she wanted to teach and how she wanted to work with them. Programmatically this suggests that some people can move through the experience more quickly and it also suggests that some people, such as Miss Lawrence who seems to have a good many appropriate talents need to be put with teachers who are extremely talented so that she can truly profit from someone who is superior to her in their approach to the children and in their day-to-day work in the classroom. The experience again is analogous to the graduate student situation where the more talented students need to be pushed and need to associate with faculty members who challenge them in a variety of ways. The possibilities inherent in the Miss Lawrence case for a first-rate clinical professor of pedagogy it seems to me are immense. Once again, all of this raises some interesting problems on the nature of individual differences, this time among teacher trainees. As I think about this I am curious as to what the literature is on how teacher trainers react to the problems of teacher trainees and apprentices and whether they spout the same truisms about their own work as they tell the teachers to carry out in their work with the children. This would be an interesting part of the literature survey, individual differences in the apprenticeship program. (12/16)

The interdependence of teacher personality and organizational structure

We have made continuing reference to the need for assessment of situations as well as assessment of personalities if the socialization of teachers is to be well understood. A classic case which clarifies this hypothesis appeared in our data. The apprentice, a young, middle-class, Negro woman with a strong social conscience and a zeal for social improvement of the lot of the Negro, by the cast of the placement die drew an assignment in a lower class Negro school which has a history of efforts to promote Negro self-help. The notes summarize an early observation and interview:

> In the discussion, Miss Charles turns out to be a very vivacious and charming young woman. She related a whole variety of events about the program. First she had a number of things to say about the Ghetto program itself. Her choice of schools had not been in the Ghetto district but in the north, one of which was Johnson, near where she lives, and she was initially disappointed to come down here. Already she's become a believer. She commented about the tremendous array of things available for the children, both during school and after school. As she said, "If they don't get it at school they probably won't get it anywhere." She commented as she listened to the teachers talk that they seemed to be quite enthusiastic about the broad range Ghetto program, most of which was supported by O.E.O., to her knowledge. She talked about literacy classes for adults, junior dramatics, senior dramatics, a bachelors' club for older boys, etc.
>
> Also regarding the Ghetto district and the school in particular, she commented about the school atmosphere. The kids, as they come into the classes, always say "excuse me," "please," and "Hello," and have all the other related symbols. She saw this as a training program that begins early in the grades and works its way on up. While she didn't see much of this happening in the first grade--in the Kindergatten--mostly because of the initial stages of getting started and the disorganization around records and enrollment, etc., she could see it in her current cooperating teacher's class, and the instructions that she gives to the children to be pleasant and to excuse themselves when they break into a class and they carry a message. She sees it in the halls and she feels that when kids who are hardly big enough to pull open a door will pull the door open for her and do little common courtesy type behavior. While her experience is limited to a few schools she visited in last year, one of which was the Tyler, which I think is a South Side school, and from comments from some of the other apprentices, although these seem to be not as broad as I would have imagined, she didn't find the same kind of atmosphere there. Also this is the first all-Negro school that she's been in. In a sense, then, I would say that this is the beginning of the evidence of the indoctrination of teachers into the Ghetto district and the fact that she's been persuaded rather quickly and rather abruptly, and

> if I read her correctly, somewhat to her own surprise. If the Ghetto project gets funded the sequel that we might well run would be to pick up ideas such as some of these and try to introduce a more extended interview or questionnaire study to clarify some of the extensiveness of the experience as well as to begin to verify special hypotheses we would have. (9/23)

Conclusion

Teachers are often implored to be cognizant of the personalities of the children with whom they are working. This means, we think, that such knowledge will enable the teacher to intervene in the classroom process to facilitate the learning of the pupils. While some literature suggests that this is so, little use seems to have been made of the principle in the devising of apprenticeship experiences and we were able to find no research on the issue. In our investigation, we have focused on several dimensions of personality which loomed large in the lives of our apprentices and upon which systematic research might well be done.

INFORMAL STRUCTURE OF THE SCHOOL

According to Andrew Halpin (1966), elementary schools vary in organizational climate. Climate is something beyond the bricks and mortar and the formal dimensions of specified roles and positions. As the apprentices draw assignments into individual buildings a good bit of their professional lives becomes a joint product of themselves, the building climate and the peculiar and idiosyncratic interdependency of the two. The argument suggests that a major source of variance in teacher behavior and the perception and evaluation of teaching behavior by colleagues and administration lies in the idiosyncratic situation. The potency of this phenomenon for research in teacher effectiveness seems large.

During the latter part of the semester we saw dramatically the issues surrounding the interdependence of the school and teacher personality as it has impact on the apprentice's motivation and morale. In talking with Miss Charles, she contrasted her two schools with regard to such things as the "esprit de corps" of the teachers, friendliness, staying after school, concern for the "total child," and principals and help with teaching. The field notes carry this rather vividly.

> I've just come from a long hour and a quarter conversation with Miss Charles. My conversation with her covered a variety of items. They go something like this: first, she still is wildly enthusiastic about her first school. The second one does not compare favorably on almost any dimension with the

first one. Some of the kinds of items that came up centered around the esprit de corps of the teachers, that's my word for it, she had not been able to put a word onto it. It included a whole wealth of things about the friendliness of the staff, the fact that they spent a lot of time together, and the fact that they often had to be run out of the building at five o'clock by the custodian. In this school, which is more typical of other schools in the city, she finds that the teachers leave much more nearly five minutes after the kids. Second, she commented that the teachers at the first school were much more interested in the "total child." In this sense they took account of all the kinds of problems that the kid had and seemed to be aware of them and seemed to build it into their teaching and their concern for the child. Here they are much more formal and seem to be less aware of the children and their backgrounds and of their problems and of their interests. Third, she made it very clear that she thought the teachers here did a "competent job" and also that personally that she got along with them and they've been very friendly to her. It was through all of this though that it seemed to me that the spirit was not there as it had been in the first school. Fourth, Miss Charles talked a good bit about the difference in the principals. While she had not marked many things about the Principal on the organizational climate scale, she had plenty of things to say about the Principal and the similarities and differences as they existed on the day-to-day behavior. For instance, this Principal in the current school does not do things as she finds out what's going on. The specific illustration that was given here concerned a youngster who was extorting money, protection money, out of children, and the Principal knew about it for a week before the Principal went ahead to do anything about it. In the latter week it wasn't until the teacher found out. Miss Charles gave another illustration of the Principal using kids who were sent down to sit on the bench, as errand boys to carry messages around the school. In Miss Charles' view this kind of behavior enables the children to think they can get away with anything. Fifth, Miss Charles's been struck that no one here has looked at her lesson plans or made any comment on them as they always did in her first school. Similarly, the Principal hasn't been in to observe her teach and from what she heard from the other apprentices who'd been in the building, she probably wouldn't be in to see her teach. Six, the Principal here, in contrast to the other one, doesn't seem to know as much about each of the children so that when Miss Charles would talk with the first one about a particular lesson or problem that had occurred the Principal always knew enough about the individual children to be able to make some comments on why it had gone well or why it hadn't, or what might be done about it.

> Looking in all of this are some major principles on the relationship of the climate of the school as an organization and on the kinds of things that one does with, for and to, children from slum areas. With these children they have seemingly successfully solved some of the tremendous problems of the hostility of the children and of the difficult interpersonal behavior and have generated an enthusiasm and a willingness to go along in those other instances where there's less than enthusiasm, which inhibits the kind of aggression that is expressed and which makes the mental health problems easier to deal with then. This is in strong contrast to some of the schools in the white slum areas. Miss Charles talked also about the difficulties in discipline which seemed to exist in a number of classes here and which makes it very difficult to do any teaching. She had expected that there would be more of this at Truman and less of it where she currently is. Quite the contrast.
>
> It's now 2:50 and I've just spent a few minutes arranging my schedule at Miss Lawrence's new school. (Miss Charles has just left this school--Truman.)
>
> The number of images comes through very quickly: first, I still feel intimidated by the Principal. I did check out two times and she took out her date book and inserted the times on Tuesday and Thursday of this next week. Second, I indicated that Miss Charles missed them and had just commented on how much she enjoyed being over there. The Principal, in turn, commented that she missed her too, that they had thought well of her. Third, when I went upstairs to check with Miss Lawrence about the schedule I found that she was in a lengthy conversation with the teacher so I only interrupted long enough to work out our schedule. The basic image here, however, is that the teacher was working with her on the problems of teaching and on what she had to do. It's just as Miss Charles had indicated and very much in contrast to the prior settings for each of them. (12/2)

Twenty days later, the observer spent several hours individually with Miss Charles and Miss Lawrence. They spoke quite freely.

> It's now 1:25 and I've just come from watching a review lesson in language with Miss Lawrence and a long lunch-hour conversation.
>
> Miss Lawrence seems to be a picture of anomie. The enthusiasm, the excitement, of her earlier teaching is all gone. She has not found the home in this school that she found in the other one. The only animation that I saw occurred when she talked about the Christmas party of the faculty of her last school which she had attended on Monday night. She was

so pleased to be back with them and so tickled when they talked about their wishes that she might join the faculty this next year if they have an opening. Miss Charles, who had fallen in love with this place, will be an interesting contrast as I go to see her in her new school. While I haven't talked with Miss Lawrence recently about her experience of being so much alone in the school, and I haven't had a chance to draw the generalization of the feelings of other minority groups in the dominant culture, it seems to me that this is a very good take-off point. It needs to be explored with her.

It is difficult to tell whether some of this loss of interest and loss of excitement is just the new school that she's in or whether it is correlated more highly with the fact that her life's plans are developing elsewhere in the sense of it is Christmas and she's worrying about getting married this coming spring and about possible house-hunting and graduate school attending. However, in the school she has had a varied experience in the sense that the first teacher whom she was with gave her an extra large dose of work and almost buried her with the amount that she had to do, while her current teacher has her doing practically nothing. This is in keeping with what the cooperating teacher herself is doing.

In a sense the problem that is getting posed is the very interesting one of two schools being held constant and two personalities, at least in the sense of the long-term structure, being held constant, and two tremendously diverse processes being started in that Miss Charles was so much in love with her first school and Miss Lawrence was so much in love with her first school, and yet neither one of them have been able to generate in their own behavior, in the perceptions of the people about them, and in the mutuality of the relationship, anything like the other had. Perhaps a careful analysis of the notes will enable us to tease apart the role of "personality" and the role of some more ephemeral social-psychological process in the whole situation. That's a good one and shouldn't be lost.

It's now 2:55 and I've just finished watching a language lesson and spending a long half-hour or more talking with Miss Charles.

It is difficult to know where to start for she talked at great length and with considerable emotion. First, she's most upset with the current teacher for not allowing her to teach. Her conception of learning is being active and her conception of the task is not the conceptualization of teaching but the actual give and take of the process of teaching. Last week she taught only two lessons and this week she's taught just a few more. She said she's suggested a half-dozen times in a half-dozen different ways on a half-dozen different subjects that she might be allowed to teach. Apparently she gets a "manana" reaction. And as she said "Tomorrow never comes."

As she said, the situation has got progressively worse as she's gone through each of the two-week periods. Last two weeks she didn't think the teacher was very good which she hedged on finally--"She didn't do some of the things that I would do." Third, she commented that the teachers didn't see their work as a "challenge" even though in some ways, again in her words, "the district was as much of a challenge as the Ghetto area." She has a real social zeal about her and feels very deeply about this part of teaching.

She went into great detail about her visit with the social worker. She went to a home over on Jones Avenue very close to the Central City Housing Project and I was surprised that it is in the North side district, and she was also. Apparently the whole day was spent with the social worker, first in this context and then over on South Winter, the staffing of the kid with the Principal, the psychiatrist, the psychologist, the social worker, etc. The social worker was trying to get the kid into Boys' Town and there's a considerable body of information that must be collected. The major problem seems to be family neglect. The mother is working at the moment, and Miss Charles thought strictly through the Christmas holidays, at a hamburger joint or some such place, and the kid may or may not get to school, even though he's in Kindergarten, and no one seems to pay much attention to him. Miss Charles said there were some younger ones in the family also and she didn't know what happened to them when the mother went out. Her guess was that they were left alone. She talked about the family circumstances and the fact that the father wasn't in the home and that the home was in quite ill repair and there were cockroaches running all over the floor. She responded quite emotionally and dramatically to this for she didn't know what she would have done if one had come her way. She talked about the social worker's relationship with the parents and the ease in which she worked with them and the informality of this. She contrasted this quite dramatically with the social worker's inability to work with the staff and the fact that the staff and the social worker didn't get along. As far as she can tell this developed early in the semester when the social worker came in and made a variety of demands upon the teachers when she didn't know them and when she had no notion of how she was to fit in and relate to them. This struck Miss Charles as containing the essence of stupidity. Those are my words.

The teacher with whom she's working now is also the teacher in charge when the Principal's gone. The officiousness of the teacher seems to be what bothers her a good bit. She is friendly in a sense and yet Miss Charles feels that she can't ask her why she does this or why does she do that, as she might with another teacher. One of the children also commented to her that she, the child, was glad Miss Charles was in the room because the teacher didn't yell at them as much during the two weeks as she did at other times. Miss Charles also reported that the teacher made a good many negative comments about the group in comparison with the group she had last year. This surprised Miss Charles because she thought the bunch was a pretty good group of kids. She said, "They're full of some foolishness but that's to be expected of kids who are this age." As I watched them I was struck by the fact that some of the girls seemed to be nearing adolescence and some of the boys were much more little boys yet. She commented about a number of specific kinds of things where the kids would come in with a number of new hairdos which would excite the boys in the upper grade but would leave the boys in this class unconcerned. Parenthetically I might comment that Miss Charles' reaction to most of the problems and idiosyncrasies of kids as they are growing up seems to be one of naturalism, and a joy in watching them develop and watching them as they work their way through these problems. She finds a real fascination and pleasure in the day-to-day coping with life that goes on with children. I wish I could quantify and assess that one away from any sentimentalism but as a very real set of reinforcing stimuli. The major cue to me for this kind of thing is the teacher's pleasure in relating a variety of anecdotes of what this one did or what this one did, or how funny this one was, or how humorous that was, etc. Perhaps some kind of a question of "relate the three most humorous or interesting or typical child behavior episodes that happened last week" would cull out what one wanted.

I went into some detail over the line of questioning that Miss Charles used in the literature lesson. Apparently in their Techniques of Teaching course they talked some about this although she didn't recall much that was said. She also commented that she follows the book heavily but would keep inserting her own notions into them. Also she said she often would rephrase them to suit her own convenience. At that point I raised with her the possibility of taping some of the recitational activities and she was most willing and said she would inquire of the Principal. She said also she would be interested in hearing how she did and could find out what she did wrong, etc. (There is that right and wrong business again which needs intensive explication.)

> To my probe of "You sound as though you really want to get out and have your own class" she responded immediately and emotionally that she really did. She feels as she said very bound in by the situation. When I asked her to specify this her two major illustrations were: "In science where it's 'deadly dull' and there's so many things that might be done and so many books on simple experiments that the kids could do that 'the fellows would really enjoy' that nobody seems to take that extra little bit of time to set up." Second, she's appalled by the minimal amount of work in literature that is done in the school and the fact that the kids even here need the enrichment, and that's my word, just as they did at the Truman, and that there were certain limitations in the homes here in this general direction. As I sat and talked with her I found myself responding most sympathetically.
>
> I got an earful on another school and Principal and the fact that he apparently has all the teachers and the social worker cowed. Also she commented that they have serious trouble in the school with the major racial transition. When she mentioned transition I asked her if it was economic or racial and she indicated racial. She also is terribly distressed over this and while she didn't talk about it in any personal way the look she had on her face was one of pain. She also talked about how little is being done in the school here and how things seem to be fine in the lower grades but that the upper grades contain a variety of problems. I asked her if there were Negro teachers on the staff and she said one in the third grade. Apparently this woman is new and seems to get along with the others although she's been aloof from Miss Charles. Miss Charles didn't pursue that one at length and I didn't push it at the moment either. She did comment that all the teachers have treated her very cordially and very friendly, especially those on the first floor whom she knows better and with shom she's worked.
>
> As I sit and think about this it seems to me that she may be experiencing some of the same things that Miss Lawrence is experiencing. While everybody is friendly and cordial it's still not the same.
>
> Never have I seen the situation so dramatically more important than the personality of the individual. Both of them were superb in their original setting and neither of them has gotten tuned in on the current setting. It will be also interesting to see whether their student teaching grades reflect this. My guess is that they won't, or at least not totally. (12/22)

The next day, the observer talks to himself as he drives downtown to an inner city school. The puzzlement of the prior day is on his mind and he is struggling for an ordered view. Later new data enter into the arena.

> As I go downtown to see Mr. Jennings I'm still struck by the issue of the tremendous variability among teachers, schools, classrooms and potentially subject matters. I can't get over the fact that neither Miss Lawrence nor Miss Charles are the teachers that they were in their prior schools. Similarly the differences between Miss Frank's performance in this two-week period and her performance in her prior two-week period is amazing. The variance attributed to schools and the variance attributed to classrooms seems almost greater at this point in time than the variance attributable to the individual teacher. This setting of a number of student teachers, a number of schools, and a number of classrooms, would be a beautiful locale for moving toward more definitive quantification. As I listen to the frustration of Miss Charles and observe the withdrawal and detachment of Miss Lawrence it's difficult to imagine the processes which have occurred. The apprentices apparently have responded selectively to different portions of their environment, for instance Miss Lawrence's feeling of being alone and Miss Charles' inability to find the spark or the enthusiasm for teaching among her new group of colleagues have seemed to influence their own outlook and this in turn has affected what they do, which in turn seems to affect the perceptions people have of them and so it spirals. All this sounds a good bit like the Lippitt circular process model and suggestions that a careful specification of that and also a careful specification of the concrete episodes from our data would be most useful in conceptualizing this phase of the apprenticeship experience.
>
> It's now 10:40 and I've just left an arithmetic lesson and a recesstime coffee break with the staff.
>
> Perhaps I'm engaged in another illustration of a self-fulfilling prophecy. However, I don't think so; but nonetheless, the major finding of the project at this point is the inter-relationship between the teacher and the situation, and the variability in the adjustment of the teacher to the situations. Mr. Jennings, as he was teaching arithmetic this morning, and really on a moment's notice and without extensive preparation, did the most artistic job I've seen from him yet. He moved around the classroom like a general who was loved and respected by the troops. From what he had said, it hasn't been this way all week and he had fits with them earlier in the week. Apparently this morning as he began he told them that they had a lot to do and they didn't have a lot of time and he wasn't going to stand for any monkeying around. The teacher was late in getting to school because of car trouble. With this they took off and apparently they rolled all morning. The time I was there it

was a beautiful, comfortable occasion. The field notes carry much of the detail of this. As we went down to the teachers' room for coffee Mr. Jennings was animated, he was on a first-name basis with his cooperating teacher. He was cheery and in the middle of Christmas spirit with the other teachers, those with whom he's worked and several with whom he hasn't. I was told by a former student of mine that they were having a surprise luncheon for him in January toward the end of the semester and she wanted to know if I would like to come. I responded dramatically and quickly, "Yes." The point I would make is that he has the relationship in this school that Miss Charles had in her first school and Miss Lawrence had in her first school, but which neither have in their present schools. He's the same man and they're the same women and ostensibly they're doing the same kinds of things from school to school. The school that Mr. Jennings' in now sounds like it's most eager to have him back and would be pleased if he were to receive and take a teaching assignment with them. You can see it, you can feel it, you can sense it. He's a full-fledged member of the staff.

Actually I don't know enough about the staff to have a clear conception of the degree to which they are integrated and the degree to which they move along as cohesively as they seem to in the brief glances that I've had and the comments I've received from my former pupil. Without question this kind of a society is a thing of beauty, probably a rarity, and something to be clutched when it's found.

The critical research problem that at the moment I don't really have a means of grabbing on to is fathoming the way in which these relationships develop. I don't really believe that our data obtained these and that one has to live considerably more intimately with the phenomenon than we've been able to do, or at least I've been able to do, this semester.

For instance, the high concern that the Principal of Mr. Jennings' first school had for organization and control and what seemed at that time, as I recall, a real displacement of means into ends, and the fact that the building was shaped and looked and felt like Mr. Jennings' elementary school which he thought had kind of a prison-like quality to it, if I remember that correctly, seems like they add up to potentially, very important phenomena.. Part of the question would ask: is it such very specific and mundane kinds of things that began the genesis, are there other kinds of things that are more significant, are there aspects of the twig is bent cliche which are critical, or what?

Another aspect of this problem, and perhaps one way to really

> break into it, would be to pick up Paul Kleine's interpretation of Jane Loevinger's point of view on ego development and use it as a thrust into this more situationally bound kind of social psychology in contrast to a trait personality theory kind of psychology which is suggested by the Loevinger position. Another paper that needs to get integrated into this is the one by Leona Tyler on something like "Individuality," which appeared, I think, in the American Psychologist four or five years ago. Similarly the argument gets involved with the Skinnerian function aspect issue, as Skinner talks about it in his book, Science and Human Behavior. Also involved and at another level is the quarrel that I have with Skinner and the possibility of the Simon decision-making theory position, as he expressed it in his book Administrative Behavior, on what really amounted to two kinds of functionalism.
>
> Once again, in summary, it seems to me that this issue has been high-lighted more in these data than I've seen them anywhere, except perhaps in the work with Geoffrey when we tried to take the position of looking at the pupils' behavior in terms of social roles in contrast to certain kinds of personality structures. If we can make this same kind of cut into the nature of teaching and the way the apprentices behaved with the children, then it seems to me the whole project will have earned its money. Quantitatively the next thrust and potentially it might be the "final" demise of that whole tradition in the psychology of the teacher. Perhaps too, it will reverberate back on to the general problem of the nature of general psychological theory for the applied psychologist. (12/22)

In summary, we are raising comments toward a reinterpretation of the issues in teacher competency. Our major point is that the variables do not lie in the teacher per se. A trait psychology will not be successful. Behavior, in our view, is a function of both personality and the situation. As we observed our apprentices, we were struck by the varying adjustments they made from building to building, from classroom to classroom, and with cooperating teacher to cooperating teacher. The importance of this observation, assuming it can be verified in more quantitative fashion, is that teachers (or at least beginning ones) might well be shifted about from situation to situation until they and their supervisors find a congeniality of relationships which produce teaching behavior they are willing to call acceptable or even competent. In broad terms we summarize this general observation in Figure 3.9.

Insert Figure 3.9 about here

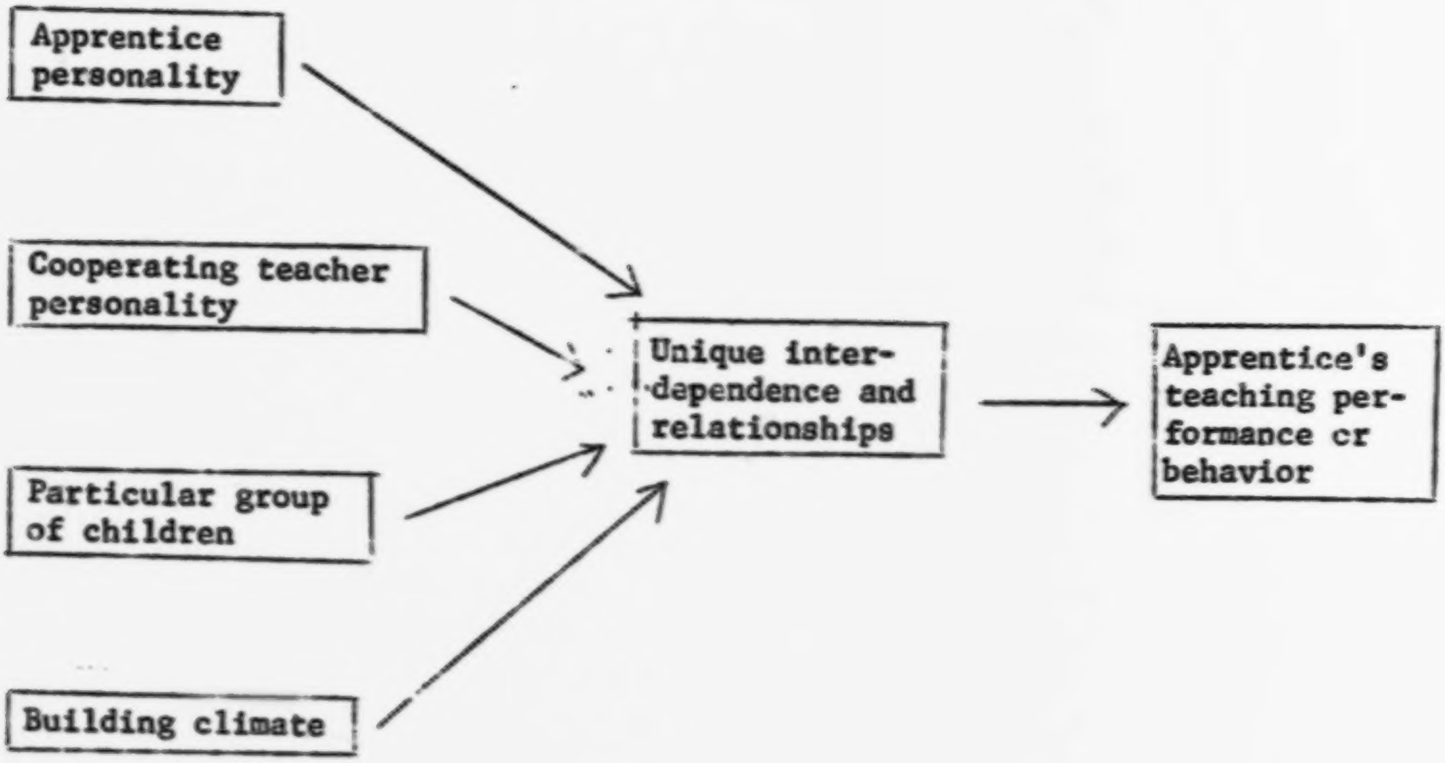
Apprentice personality
Cooperating teacher personality
Particular group of children
Building climate
Unique inter-dependence and relationships
Apprentice's teaching performance or behavior

Figure 3.9 Determinants of teaching behavior.

Chapter Four

The Learning Outcomes of the Individual Apprentices

On several occasions (Smith & Geoffrey 1965; Smith & Keith, 1966) we have argued that a theory of teaching must include, but must be broader than, the teacher as a purveyor of information and also it must include, but must be broader than, even a subtle analysis of teacher-pupil interaction stressing individuality, creativity and critical thinking. The theory must encompass the formal organization of the schools and the various reference groups to which the teacher belongs. As we observed and talked with our apprentices they were learning these kinds of things and more too. In this chapter we address ourselves to the small items and the large issues of change in our apprentices. In a sense, these become the manifest and latent outcomes of the program.

CONCEPTS AND IMAGES OF SCHOOL ORGANIZATION

The nature of Big City's School System

"Scuttle-butt" is a navy term for rumors, gossip, and information one acquires as one goes about his daily routines. The verities and the realities of an organization are presented in a variety of ways and an image of the totality begins to take shape. The socialized individual comes to know a number of such details about the organization in which he might spend his entire professional life. The apprenticeship begins this long, never ending process.

> In the course of the conversation with some of the teachers there was some discussion of the Buchanan School, to which the apprentice will go next. They saw it as a very troublesome spot. The gym teacher and the eighth-grade teacher also commented some about the school near the Buchanan, called the Pierce. They commented that the Principal had moved from there to an "easier" school and that as the eighth-grade teacher said "He's put in his time" and "He deserves it." They see the school as a very difficult place. One of them mentioned "Twenty suspensions" in the first few weeks or month of school. Whether that was this year, last year, or some other year, I don't know. Another aspect of the school that drew some attention was the fact that there were "transportees" involved in the school. As the apprentice said, "When they talk about the Buchanan to which he goes they all wish him 'good luck'." In terms of our problem the development of stereotypes through the coffee-drinking sessions of the teachers seems to be an important piece of the whole puzzle. To trace out in our notes what these sterotypes are and then what the reality is as the students come into them, seems to be very necessary and very important. (9/22)

As an organization, the public schools have some most interesting differences from most other organizations. For instance, the first line workers are "professionals" in the sense of advanced training and self images, yet they have considerably less mobility than other professional groups for they typically spend their days in one room of one building. This kind of isolation means that the information they possess is limited and it usually comes informally, through gossip, rather than from direct observation or personal experience. The apprentice, who is being socialized into the system, receives his indoctrination into the system's ambiguities in similar fashion, although, surprisingly he has more mobility now than he will have as a professional in the system.

Insert Figure 4.1 about here

Organizational climate

One of the data gathering devices which we implemented on several occasions involved bringing several of the apprentices together and letting them talk to one another about their experiences. One of the first of these introduced us to a concern for an undifferentiated concept such as "organizational climate."

> The discussion moved along very significantly as the two quizzed each other and reported experiences. Mostly I sat out and listened. There is a very marked contrast in the schools and it seems as though the Truman School, which is supposed to be the culturally deprived school, has considerably more resources than the Wilson School. As this unwound it became very fascinating and there are a number of elements to it. Part of it seems to me to relate to the varying emphases upon order which exists in the two schools. The Truman School is much less like a prison than the Wilson School. Mr. Jennings reported that the teachers have more than hinted at his keeping busy whenever the Principal comes by and, as he put it, there's a kind of a rivalry, a competition between him and the Principal. Miss Charles reported none of this in her School. A second major difference that comes out in the two classrooms that the apprentices are in now, is that there's a good bit more variety, and concrete activity beyond and in supplement to the textbook in Miss Charles' class than in Mr. Jennings. Another element of this same style is the attempt to integrate and develop the same kinds of concepts in a variety of contexts. The major example here where the teacher has been working on more or less in arithmetic and had books that she took from one pile to another pile and asked about more or less. This later came up in two differ-

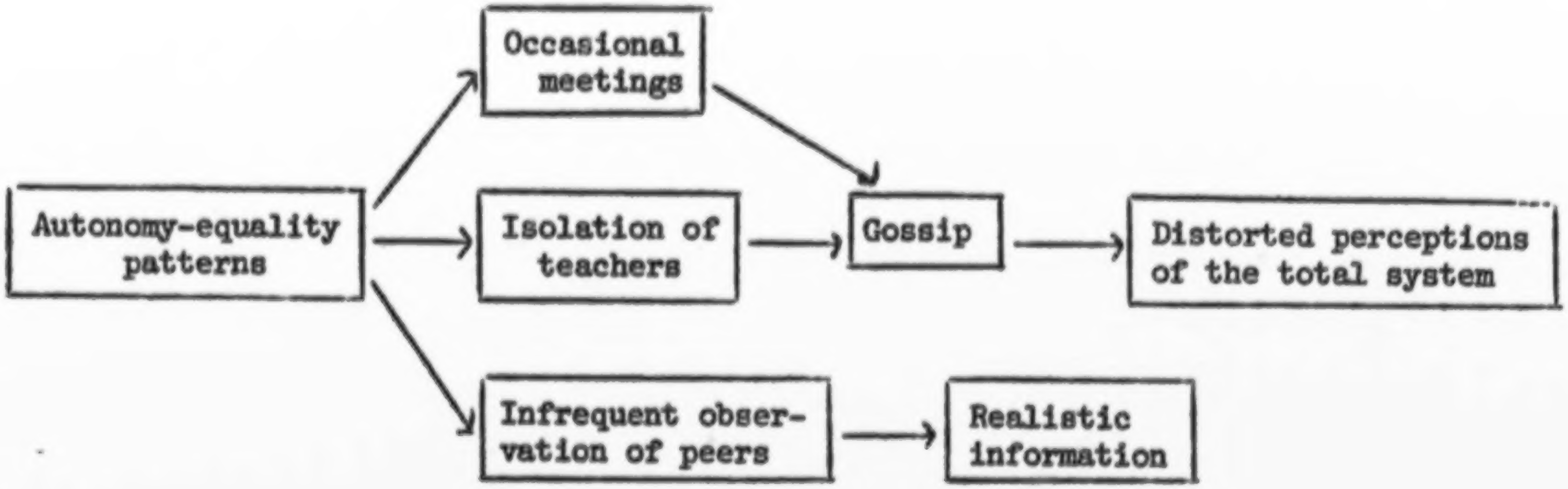
Autonomy-equality patterns
Occasional meetings
Isolation of teachers
Infrequent observation of peers
Gossip
Realistic information
Distorted perceptions of the total system

Figure 4.1 Problems in developing realistic perceptions of the total school organization.

> ent ways in the reading assignments, one of which I saw and noted in the field notes.
>
> A further difference between the two schools lies in the bulletin boards. As Miss Charles said, there is tremendous emphasis on these in the Truman School. There's almost no emphasis in the other school, the Wilson School.
>
> To return to the bulletin boards for a moment, Miss Charles reported that each teacher is assigned a bulletin board for some part of the semester and must have some kind of colorful art work or displays. When I asked her what she thought the bulletin boards added up to she responded very positively in that they produce a good bit of color in the classroom and they "brighten things up." It takes a good bit of the institutional grey or green dreariness out of the school.
>
> Another major difference between the schools in the resources surrounding the teachers' facilities. In the Truman School they have a large teachers' room while in the Wilson School the teachers' room I pose descriptively as similar to the dungeons that one might find in a story such as the Count of Monte Cristo. Mr. Jennings verified this and Miss Charles thought it was hilarious. Similarly the Truman School has a P. A. system and an intercom system, neither of which exists at the Wilson School.
>
> Both apprentices reported difficulties in the school the first few days with lack of materials. The Wilson School had no pencils and the cooperating teacher had to utilize some she had left over, borrowed a few, but otherwise would have been in serious trouble. Both schools had had some book-distribution problems.
>
> Before I forget it, it suggests another major variation that we need to implement research-wise and that's the impact of the total school in the experience of the apprentices. The two-by-two which culminates in two experiences of ten weeks in two different schools is critical here. If Mr. Jennings were to spend the whole semester in the Wilson School he would come out with a very, very different impression than Miss Charles would if she spent the whole year in the Truman School. This would be so even though one is with seven or eight different teachers. (9/24)

The individual schools were very different environments. The apprentices came to appreciate this most vividly when they changed schools rather than as they listened to their peers. Later, we will describe a finding, surprising to us, in which the building climate is partially a function of the "home" an individual apprentice finds in it and that the second apprentice in the building finds it different from the first.

Organizational thrust

Often it is impossible to follow the implications of organizational change as it is initiated by a superintendent and filters through the principals to the teachers and then the pupils. When an apprentice moves into the system, the possibilities arise of seeing the innovation through fresh, if not naive, eyes. The full impact develops only as the apprentice's personality structure is congruent with the thrust. In this sense, Miss Charles found the large scale Negro "operation Bootstrap" in the Ghetto District surprising and potent.

> In the discussion, Miss Charles turned out to be a very vivacious, and charming young woman. She related a whole variety of events about the program. First she had a number of things to say about the Ghetto program itself. Her choice of schools had not been in the Ghetto District but in the north, one of which was Johnson School, near where she lives, and she was initially disappointed to come down here. Already she's become a believer. She commented about the tremendous array of things available for the children, both during school and after school. As she said "If they don't get it at school they probably won't get it anywhere." She commented as she listened to the teachers talk that they seemed to be quite enthusiastic about the broad range Ghetto program, most of which was supported by O.E.O. Corporation, to her knowledge. She talked about literacy classes for adults, junior dramatics, senior dramatics, a bachelors' club for older boys, etc..
>
> Also regarding the Ghetto District and the school in particular, she commented about the school atmosphere. The kids, as they come into the classes, always say "excuse me," "please," and "Hello," and have all the other related symbols. She saw this as a training program that begins early in the grades and works its way on up. While she didn't see much of this happening in the first grade - in the Kindergarten, mostly because of the initial stages of getting started and the disorganization around records and enrollment, etc., she could see it in her current cooperating teacher's class and the instructions that the cooperating teacher gives to the children to be pleasant and to excuse themselves when they break into a class and they carry a message. She sees it in the halls and she feels that when kids who are hardly big enough to pull open a door will pull the door open for her and do little common courtesy type behavior. While her experience is limited to a few schools she visited in last year, one of which was the Tyler, which I think is a South Side School, and from comments from some of the other

> apprentices, although these seem to be not as broad as I would have imagined, she didn't find the same kind of atmosphere there. Also this is the first all-Negro school that she's been in. In a sense, then, I would say that this is the beginning of the evidence of the indoctrination of teachers into the Ghetto District and the fact that she's been persuaded rather quickly and rather abruptly and if I read her correctly, somewhat to her own surprise. If the Ghetto project gets funded, the sequel that we might well run would be to pick up ideas such as some of these and try to introduce a more extended interview or questionnaire study to clarify some of the extensiveness of the experience, as well as to begin to verify special hypotheses we would have.
> (9/23)

The point we would stress here is that the "Operation Bootstrap" program in the Ghetto District was having important effects in the eyes of a young idealistic Negro woman. The significance in the lives of young adults is an important consequence, independent of the impact upon the children. In our judgment, little systematic attention has been paid to the event. Figure 4.2 summarizes these consequences.

Insert Figure 4.2 about here

The potency of the building principal

At times, it seems, our observations reflect an analysis of the Big City Public Schools as a large formal organization rather than an analysis of socialization into the profession. Perhaps that is as it should be for a considerable part of the apprentice's learning lies in acquaintance with the system. An early episode in the notes led to considerable reflection.

> I also got some further information about the Principal's influence on the apprenticeship program. She's the one who turns in the final grade and apparently it over-rides any grade that is given at the College. The College instructors can append an explanatory note as to why they think the grade should be higher or lower but the grade goes as the principal turns it in. In the case of the Principal at Mr. Jennings' school, she also takes the job quite seriously for she's in and out of the classroom from time to time and has already sat in on a lesson in each of the rooms she's been in. She has on at least one occasion come into the room with the current teacher and indicated that Mr. Jennings, instead of just watching, should be moving about the class and helping the children with what they're doing. Mr. Jennings sees her as being very influential in the fact that he's teaching

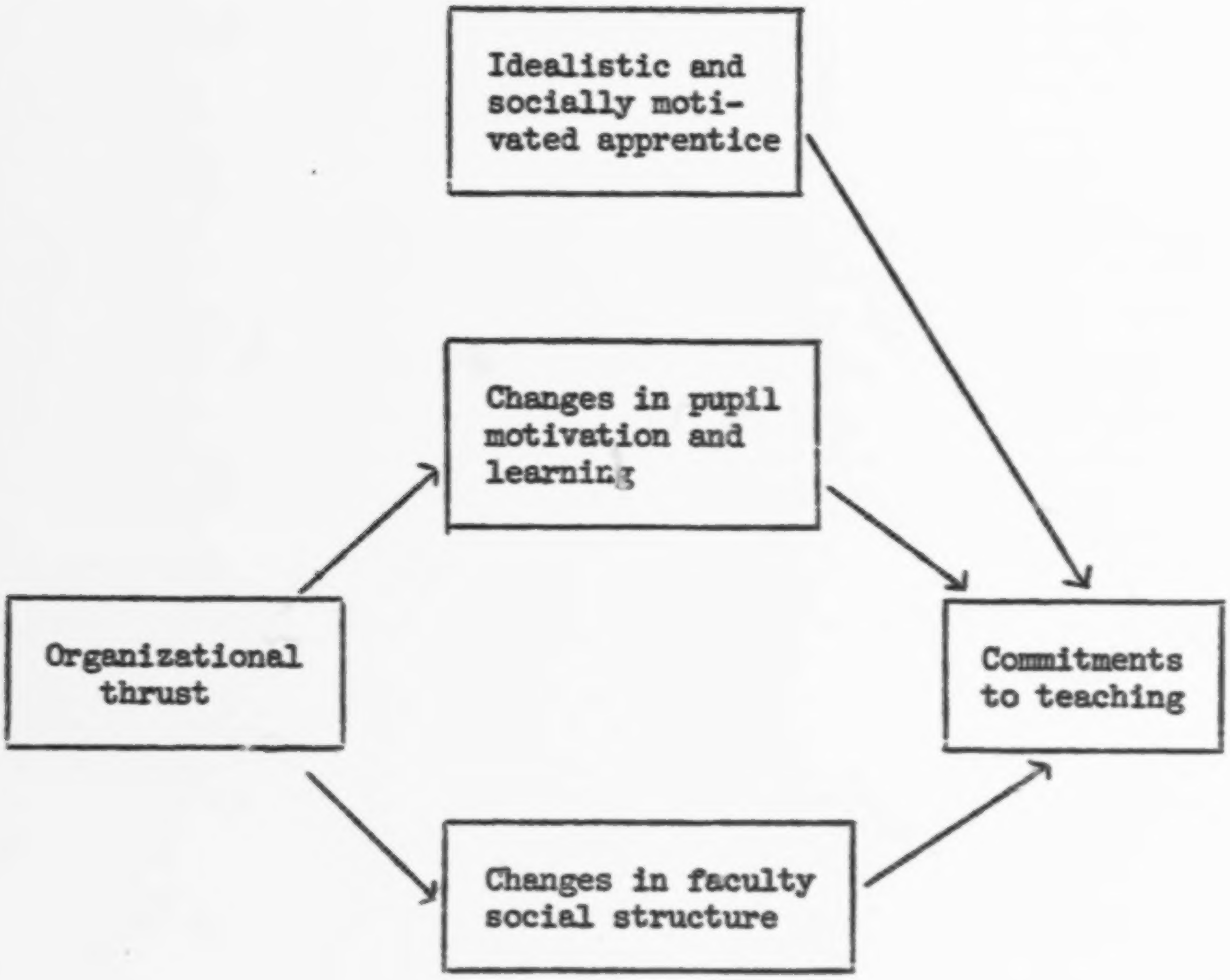
Idealistic and socially motivated apprentice
Changes in pupil motivation and learning
Organizational thrust
Commitments to teaching
Changes in faculty social structure

Figure 4.2 Impact of organizational thrust upon an apprentice.

> a very heavy load and is busy most of the time. He responds quite warmly to this. (9/23)

Throughout our stay we found the principals to be "kings of the hill" in actuality. On occasion, when they were not, the apprentices and teachers alike thought they were not doing their job. For someone who wants to change the school from "executive" to "collegial authority," as does Schaefer, (1966) in his discussion of the school as a center of inquiry, the magnitude of the phenomenon begins to arise. Not only are the teachers not inclined, but the apprentices are being socialized in the same direction. Implications of this are presented in Figure 4.3.

Insert Figure 4.3 about here

Vulnerability of the apprentice

The apprentice, beyond learning how to deal with groups of children also learns the nature of the adult social structure in the schools. In some instances, the vulnerability of her position becomes very apparent to her.

> We talked a good bit also about the problem she had in the last two weeks. She indicated that she had talked to her supervisor and had also talked to the Principal. Apparently this just didn't go anywhere or help her very much. Her supervisor's general position, as Miss Frank reported it, was that you can't do very much when the cooperating teacher doesn't have control. She apparently was dealt a pretty severe blow and commented about being very depressed on Monday, "You should have been here then" for the Principal phrased the problem around the notion that if you teach well then you don't have many discipline problems. As Miss Frank told me, "What could I say?" She also felt hindered in terms of talking about the cooperating teacher in that she thought the Principal would "back" her staff. In bold relief came the problems in the social structure of the experience. The relationship between the teacher and her Principal, the relationship between the apprentice and her supervisor, and the various cross-linkages that exist in this situation and the vested interest that exists in the situation all suggest difficulties in mobilizing resources for the apprentices in trouble in one way or another. The problem is complicated further by a later comment that Miss Frank made that the cooperating teachers often don't know what is expected of them and they don't know what's expected of the apprentice and sometimes the principals aren't sure either.

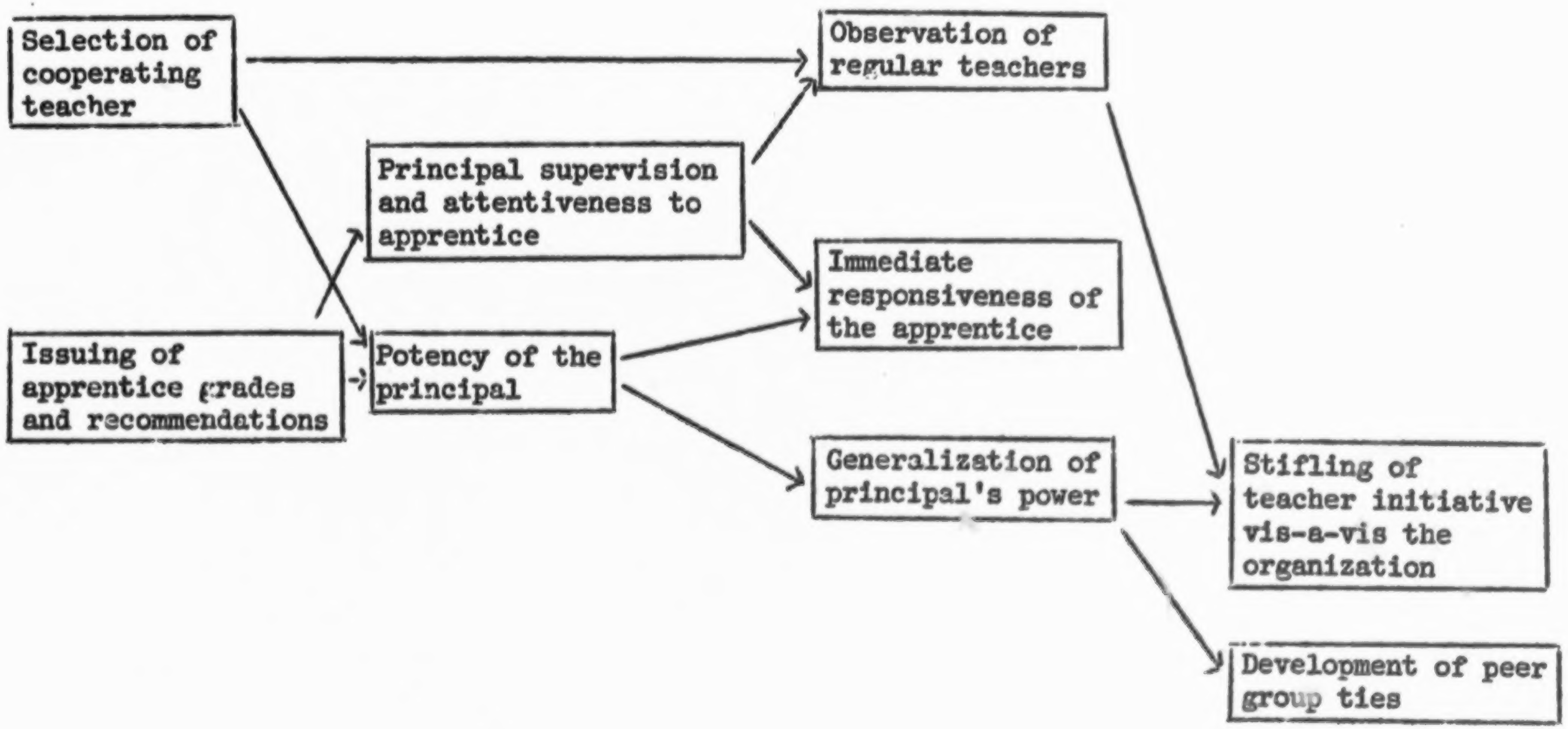
Selection of cooperating teacher
Issuing of apprentice grades and recommendations
Principal supervision and attentiveness to apprentice
Potency of the principal
Observation of regular teachers
Immediate responsiveness of the apprentice
Generalization of principal's power
Stifling of teacher initiative vis-a-vis the organization
Development of peer group ties

Figure 4.3 Potency of the principal in Big City.

> We might well take the problem as I'm specifying it here and post it for ourselves in terms of "creative solutions" that are available to the college, or to the profession more generally, as it tries to build socialization experiences into the neophyte teachers. The need to build a cadre of cooperating teachers who see clearly what you're trying to do and who shares some of your perspectives seems very important. The low amount of resources available to most apprenticeship programs, in this instance two supervisors are handling 70 or 80 apprentices, makes the situation look ridiculous. The whole conception of supervision and what a supervisor might do under optimal conditions of having just a handful of apprentices, suggest once again the need for some kind of conception of the ideal which then can be pushed and pulled in the realities of the situation. That opens up a good bit of literature in the general area of educational supervision which we ought to be able to make a major creative cut into. (12/16)

However, in the eyes of most of the apprentices the "2x2" is evaluated positively. The notes from an early October conference summarized it this way.

> As the three of us were talking several student teachers joined us, some of whom were part of the other two groups and several who were not involved in the study. Therefore I attempted to keep the conversation quite general while still trying to glean some information about their perceptions of the City Student Teaching program. Most of them are quite favorably impressed with the two-week by two-week program.
>
> As I cautiously tried to raise possible weaknesses or contrasts with other programs usually my points were rebuffed by the student apprentices taking a position defending the two-week by two-week program. In short, they feel that it has many advantages which outweigh the disadvantages. One individual however, who is not a part of our study, was making several points, most of these we have discussed. He said, "It's simply mathematically impossible to know three-hundred and fifty kids as well as you know thirty-five." He mentioned a shortcoming in that especially in the upper grades you come in in the middle of a unit in social studies and you leave before it's completed and it is quite difficult to get a glimpse of the totality. This somewhat supports one of my earlier views that while they are getting in one respect the whole total picture of the eight grades they are however, getting it in isolated bits and pieces and they may not be getting the overall perspective that at first I thought was possible. They did mention other advantages,

> however. One of which was giving them a better picture of the grade level at which they would like to teach. If they taught only in one classroom they would not be as sure of their future teaching preference, however by seeing each of the grades as they go through, they are better able to make a choice of the grade level they prefer to teach in. In most of the general discussion it appeared to me that most of these apprentices have a completely different orientation toward teaching than perhaps our City University apprentices would have. The City College conception of teaching tends to be the actual period of time that you are standing in front of the classroom communicating subject matter content. As I attempted to raise issues the usual arguments were that you do get a chance to teach a whole block of time and by whole block of time they were referring to one, two, or three lessons in a sequence. They did not seem to grasp teaching in some of the broader perspectives that seemingly are discussed in City University Ed. Psych. classes. They tended not to even think in terms of the classroom as a social system or preparing pupils for life or some of the other more grandiose, ideal notions we might have. To repeat, again most of their reflections concerned the hour by hour or minute by minure classroom instruction that goes on within a given class period.(10/1)

We remain impressed with the "teaching well" perception as the mediator between the classroom experiences and the integration of the apprentice into the school faculty. In a sense this has the flavor of an initiation rite of passage which we did not find elsewhere in the experience. The definition of teaching well we speak to elsewhere.

The potency of the college supervisory staff also seems open to question as we speculated in the final part of the exerpt from the field notes. The phenomenon of supervision as conceptualized in the educational literature is a part of our analysis elsewhere, as well.

CONCEPTS AND IMAGES OF CLASSROOM PROCESSES

The general image of teaching

While in other parts of this monograph we argue the implications of varying analogues for the interpretation of the apprenticeship experience, the field notes continue to pull us back toward a reality of specific individuals, times, and places. One element in the learning which seems to need intensive exploration is the apprentice's image or conception of teaching. The notes led up to the issue in this fashion.

> While she was feeling somewhat depressed about the way things

> were going. it seemed to me that the problem was in her relationship with this teacher. The short social system phenomenon seems to have a broad impact. In contrast to the teachers with whom she has taught, Miss Frank has come to know one of the teachers in the building, in Special Ed., who happens to live somewhat near her and rides the same bus with her. She has raised the punishment issues with her rather than with any of the three people or with her supervisor, because of the network of complications. The argument that this teacher makes is that if they have it this way at home, then if you can't get their attention so that they will begin to work, you need to do something.
>
> The feeling I get is that the apprentices carry some image of an ideal teacher and this image keeps getting chipped away at even with teachers that they see as very good, as Miss Frank does her cooperating teacher with whom she had the kids in A-1 last week. (10/7)

Unfortunately, we did not survey intensively the initial images of teaching presented by our apprentices. The degree to which idealism, realism, concreteness existed is not clear. By inference, as we discuss shortly, their reactions often took on an "unexpected" quality, for instance, in Miss Charles' reaction to the Truman School in the Ghetto District, which enabled us to make judgments about prior expectations.

Concrete perceptual images of children and teaching

The "2x2" program had a number of latent consequences which were not anticipated by our inductive approach to the program. The concrete perceptual images dimension arose from an early observation of Miss Frank's log and from a conversation with a principal.

> To this point I've made arrangements to see two of the apprentices at City Teachers College on Friday morning. They seem most willing and cooperative in this endeavor. Both of those that I've had a chance to talk to and make such arrangements have also carried out several of the daily writing assignments. As I scan briefly a couple of Miss Frank's it is very interesting the mundane kind of percepts that are getting built. One of them for instance centers around the frequency of the kids crying and the advice of the teachers not to pay any attention to it or otherwise you'll have a whole lot of it. How we will eventually categorize and organize these remains a very interesting kind of a question. (9/16)

A few days later, the notes contained this account.

> The Principal also raised a number of things about the apprenticeship program. In commenting about people that she's interviewed for jobs as part of the screening committee of the city at large, she said that the people from the teachers' college, and she mentioned both the earlier teachers' college for Negroes and the current college, are noted for their ability to give an approximation of an answer at any grade level. Persons from outside the system who've come through a program like our's generally have difficulty when they get off the second or the sixth or whatever grade they taught. She commented about the fact that they have more supervision problems with these people than with the people from City Teachers' College. The training program has some very real functions for lightening the load of the principals. How much of it is that kind of training or the indoctrination into the system more generally is not ascertainable at the moment. (9/21)

Our notes are replete with the filling in of the vague, the general, the abstract with the specific, the particular, and the concrete. Our apprentices absorbed these details as does the proverbial sponge.

The phasing of such experiences was raised in the next paragraph of the same set of notes.

> The Principal used also the word "smattering" to describe the City program. Apparently she has some questions about what is accomplished more long-term wise in this short two-by-two program. Part of the argument we might make here concerns the state of the apprentice and what might and should be learned. The high number of varying raw perceptions that are created as you go through the whole school in various styles may be most appropriate as a sort of "background experience" with the necessity of the long-term apprenticeship coming later. It could be argued that the longer term experience would then be handled in something more like a paid internship. Similarly it might be argued that the two-by-two experience could well be in the form of a teachers aide. You do what you can and you pick up what you can and in between that experience, or concurrent with it, you take the related courses in the theory or pedagogy. (9/21)

Presumably ways of measuring such experiences could be developed and if one decided the experience was important, then ways could be developed to phase apprentices through the total process.

In October, items with a sensational dimension appeared as the apprentices traded stories:

> It's now 11:10 and I'm on my way back from my usual Friday

> morning meeting with the four apprentices. They are all full of vitality and excitement about what they are doing and what they are learning and the experiences they are having.
>
> While I'm beginning to sound like a broken record it seems to me that many of the ideas that we've generated about the importance of concrete images and the trying one's wings in the role of teacher, these seem to keep coming through very strongly. For instance, Miss Charles mentioned with some feeling of having missed an important event, the fact that one of the boys in her last class had a seizure this Monday, the morning after Miss Charles had left the room. There was no question that she felt strong sympathy and feeling for the boy who has Eqilepsy; at the same time this kind of unique new experience was one that she hadn't had and she wondered what one would do about the child to keep him from biting and swallowing his tongue, etc. Similarly, Miss Frank commented about the fact that she probably will get playground duty this next week, even though she's not supposed to have it. Some of this arose in the discussion with a young man who was not part of our sample who reported the same kind of "jungle" occurring at the North side Ames School, wherein one ki stepped on another kid's face. The apprentice had to break it up. The Connors room is a haven for this kind of discussion on Friday mornings when the apprentices come in from the schools. (10/8)

The importance of such learning we sketch in Figure 4.4.

Insert Figure 4.4 about here

Teacher awareness

In several places now (Smith & Geoffrey, 1965, and 1968, and Smith & Kleine, 1967) we have noted a phenomenon of teacher awareness--the degree to which the teacher knows of events and happenings in his class. Geoffrey, for instance, had considerable knowledge of friendship patterns and out of school life of his children. In the Smith and Kleine investigation the antecedents and consequences of the teacher's awareness of classroom social structure and pupil competencies academically and psychomotorically are being explored. The problems of selection of teachers and training in sensitivity skills seem intimately bound into the brief periods of the "2x2" program. In the October notes we commented this way:

> The way in which the teachers learn the groups seems to me to be another very important kind of problem that I haven't filled in much information about as yet. I have been amazed that each

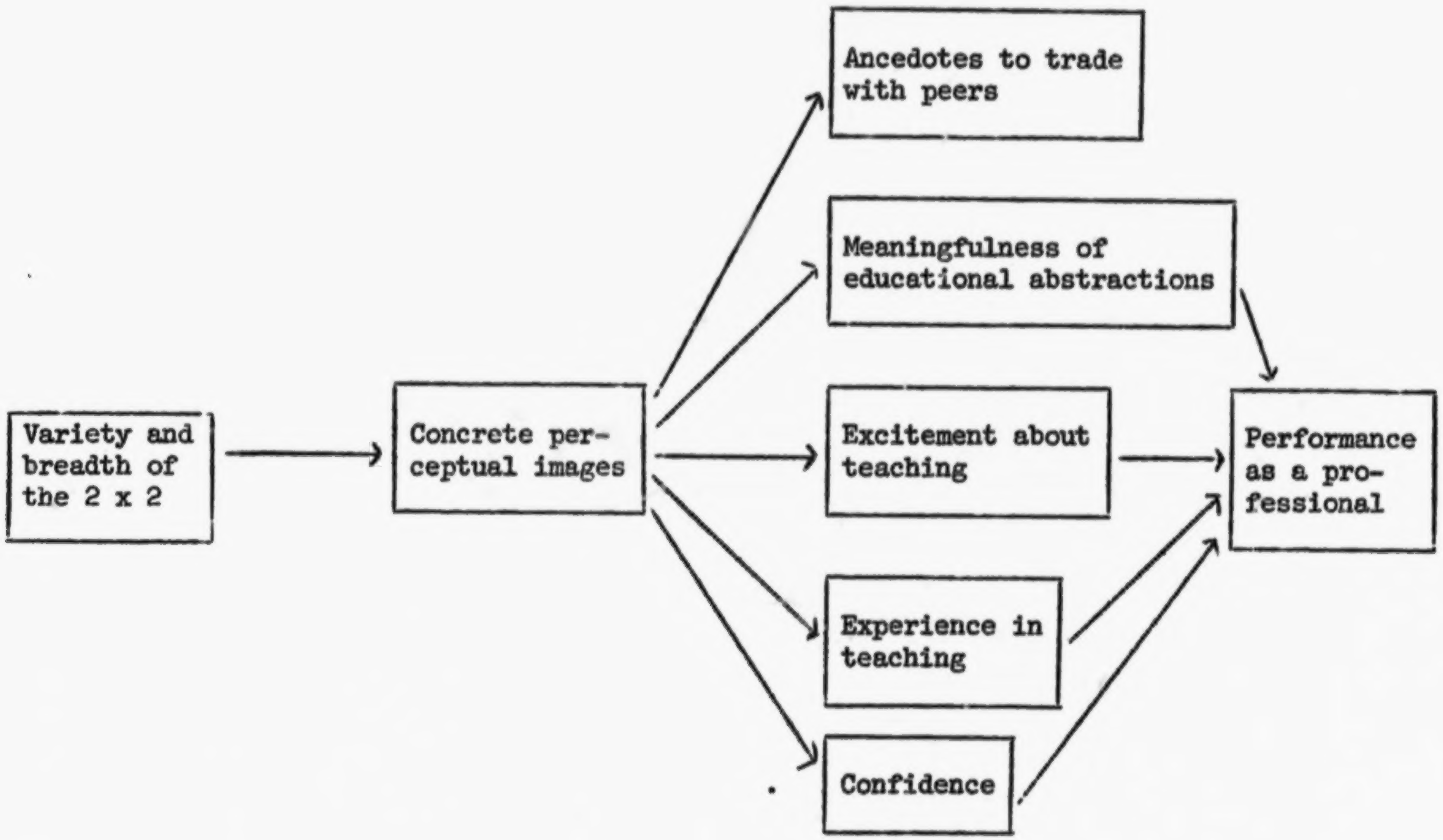
Variety and breadth of the 2 x 2
Concrete perceptual images
Ancedotes to trade with peers
Meaningfulness of educational abstractions
Excitement about teaching
Experience in teaching
Confidence
Performance as a professional

Figure 4.4 The consequences of acquisition of concrete perceptual images.

> of the teachers knows the kids by name and apparently they are instructed to learn this very quickly the first day or two they are in the system. Differential abilities in this kind of skill should show as importantly related to this kind of two-by-two training strategy. (10/7)

If the skill of "awareness" is important, as we have hypothesized, then the modes of sharpening the skill in the practicum experiences needs careful evaluation. The "2x2" program may have some unanticipated functions in this regard.

Typically also, our observations record the use of pupil name tags as the apprentices begin their two week sojourn. Such a simple device facilitates the apprentices' learning as any well-constructed "prompt" might do. Also the tag seems to us to represent a functional equivalent of a longer period of acquaintance time. Once again we note an organizational "gimmick" which serves the purpose.

> 11:00 Children back from recess. Some of kids wear name tags. (OBS: This also occurred with Miss Frank. Device for aiding apprentice--it seems.) (10/7)

If one can believe generalizability to other urban classrooms exists in the account presented by Smith & Geoffrey (1965 and 1968) in their intensive description and analysis of a single classroom, then the two-by-two apprenticeship program must miss a major portion of the reality of classroom life. To summarize briefly, Smith and Geoffrey found complex structures and processes surround pupil roles, subgroup interaction and teacher-pupil relationships. They found too that the generation of belief systems, establishment of authority patterns, and development of an activity structure contain considerable nuances and subtleties. The questions we must ask our data concern the degree to which our apprentices were aware of these structures and processes and special limitations and assests that accrue to the "2x2" program. As we observed and talked with our apprentices they seemed to have quite limited awareness of quite fundamental elements of the complex social structure existing in each of the classes they passed through. These elements go considerably beyond an awareness of children's names and initial perceptions of gross ability distinctions.

Time Perspectives

Questions need to be raised concerning the nature of the time perspectives that are involved in differing patterns of student teaching. Future time perspectives that seem to operate in the apprenticeship program are generally of the short-range variety. These are made up of the following: (1) Can I succeed in establishing a smoothly working relationship with the cooperating teacher and pupils during this two weeks; (2) I have four grade levels to cover in a particular school in ten weeks;

(3) I have twenty weeks of student teaching in two schools at eight grade levels; (4) At what grade level and in what kind of school will I be assigned for my first year of teaching; (5) Can I succeed on my own in my own classroom; (6) What kind of ten week and end semester grade will I get in student teaching.

Within the apprenticeship itself, questions of time continue to intrude themselves. The apprentice faces, among others, the following kinds of problems. 1. Will I be able to plan in advance for the two weeks, i.e., has the cooperating teacher worked out a clear-cut set of goals and related experiences so that I know what to expect in her classroom; are there a variety of materials available; what is the time allocation between observation and classroom teaching during the two weeks and what kinds of continuities or discontinuities will there be during the two weeks? 2. Will I have time to know the children and establish enough rapport with them so that I can control the class on my "Thursday alone with them?" 3. Can I handle three different groups smoothly and cover the required material? 4. What time will I have available during the school day to "run off" teaching materials for use with the pupils?

Insert Figure 4.5 about here

CORE INTERPERSONAL SKILLS[1]

The educational literature speaks profusely but generally about "relating to children." Seldom does an account break through into more analytical terms. By shifting the label from "relating to children" to "core interpersonal skills" we wish to state the case that the issue is analyzable and dissectable. The taxonomy we propose builds upon earlier observations (Smith & Geoffrey 1965, 1968) and continues our attempt to specify observable and trainable skills which can make up a repertory available and useful to teachers. This repertory may have as its criterion of usefulness, a social reality, rather than an empirical reality. For instance, it may be that the specified teaching procedures are not more highly correlated with pupil learning than other possible procedures; it may be that this particular school system or group of teachers in a building thinks so and has agreed that this is the way teaching should go.[2]

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[1] This label is a variant of several terms suggested by Lortie (1965).

[2] A sensitive account that relates to an inner-city school is Nat Hentoff, Our Children Are Dying, New York: Viking, 1966.

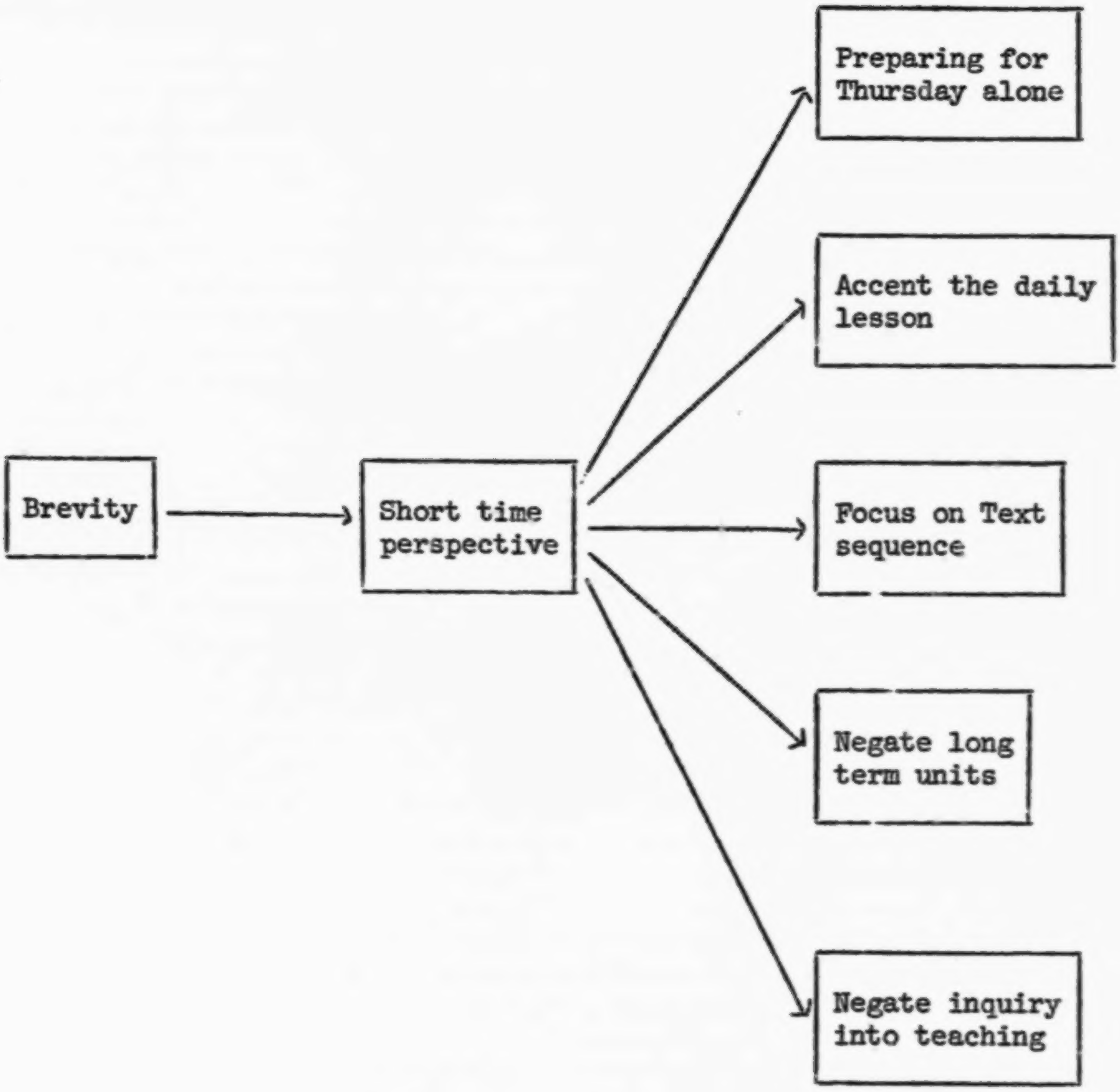
Brevity
Short time perspective
Preparing for Thursday alone
Accent the daily lesson
Focus on Text sequence
Negate long term units
Negate inquiry into teaching

Figure 4.5 Consequences of the short time perspective.

The "take charge" orientation

At times, the apprenticeship seemed not so much an arena for learning as a stage on which one performed with previously developed skills. One of our apprentices had a quality of being a "natural" teacher. She exhibited a number of behaviors early which suggested this label; one of these was what we called a "take charge" orientation. It occurred in a primary class in October.

> 9:00 Class is kind of disorganized as teacher collects money for savings stamps. Some children copy arithmetic problems from board, etc.
>
> In the reading lesson Miss Lawrence reviews some of the content of the story, then has the list of words on a chart at front board. She carries out the recitation partly around the room one word per pupil and partly several words per child picking the words at random from the list.
>
> She has a "take charge" orientation as she calls on the kids, moves one boy up closer so he can see, etc. She does the lesson: now using the large company prepared chart by silent reading, identify new word, make up new sentence or use another word instead, etc. without any reference to the teacher's manual. She radiates a "this is the way" as she gives directions and makes requests. No hesitancy at all. The child whose name she doesn't know she asks "What is your name?"; when they talk with hands over their mouths she tells them they can't be heard and to do it again.
>
> 9:12 She moves to silent reading pp. 61 and 62 to find out Jody's other surprise. Indicates they should read "around a word" if they don't know it.
>
> Through all this the cooperating teacher has been helping the dozen who are at another level and occasionally (only 2 or 3 times) making a facilitory comment or moving material about.
>
> The room contains about 24 E's and 11 D-2's.
>
> 9:17 Most of kids (in Miss Lawrence's eyes) are finished and she begins quizzing them about the content. Varies from what happened type of question to "read the sentence which. . ." Group seems quite large for this kind of work. She stands at front. Group only partly with her. The work is difficult for a fair minority of the children.
>
> 9:20 She has them go on to the next two pages. Calls down

Michael and Adrian: "Turn around and read the story."

The class has seven Negro children here today. All are boys. They seem to be among the bit more squirming and restless group. They also seem to be among those having the most difficulty academically.

9:25 Miss Lawrence picks up the same kind of questioning strategy. She had talked with the cooperating teacher about time and finishing the lesson.

9:27 Lesson over. (10/12)

The moving into prominent and significant interaction with the children to accomplish well accepted faculty goals resulted in both immediate and long term favorable consequences. The children actively partook of the activities and designated learning experiences. The teachers throughout the ten weeks were to evaluate her positively. Later in the semester they commented to the observer that she was one of the best apprentices they had ever had in the building. We have diagrammed, in Figure 4.6, the implications of "taking charge." At other points we have reference to the longer trial and error aspects of this learning with other apprentices.

Insert Figure 4.6 about here

Learning to Develop an Authority Structure

In Bureaucracy in Modern Society, Peter Blau speaks of the nature of authority in a bureaucracy. His position may help to clarify to some degree the nature of the problems encountered by apprentice teachers in learning to build an authority structure in the classroom. Regarding the authority concept he notes three aspects:

> First it refers to a relationship between persons and not to an attribute of one person. Second, authority involves exercise of social control which rests on the willing compliance of subordinates with certain directives of the superior. He need not coerce or persuade subordinates in order to influence them, because they have accepted as legitimate the principle that some of their actions should be governed by his decisions. Third, authority is an observable pattern of interaction and not an official definition of a social relationship. . . Actual authority, consequently, is not granted by the formal organizational chart, but must be established in the course of social interaction, although the official bureaucratic structure. . .facilitates its establishment. (Blau, pp. 71-2)

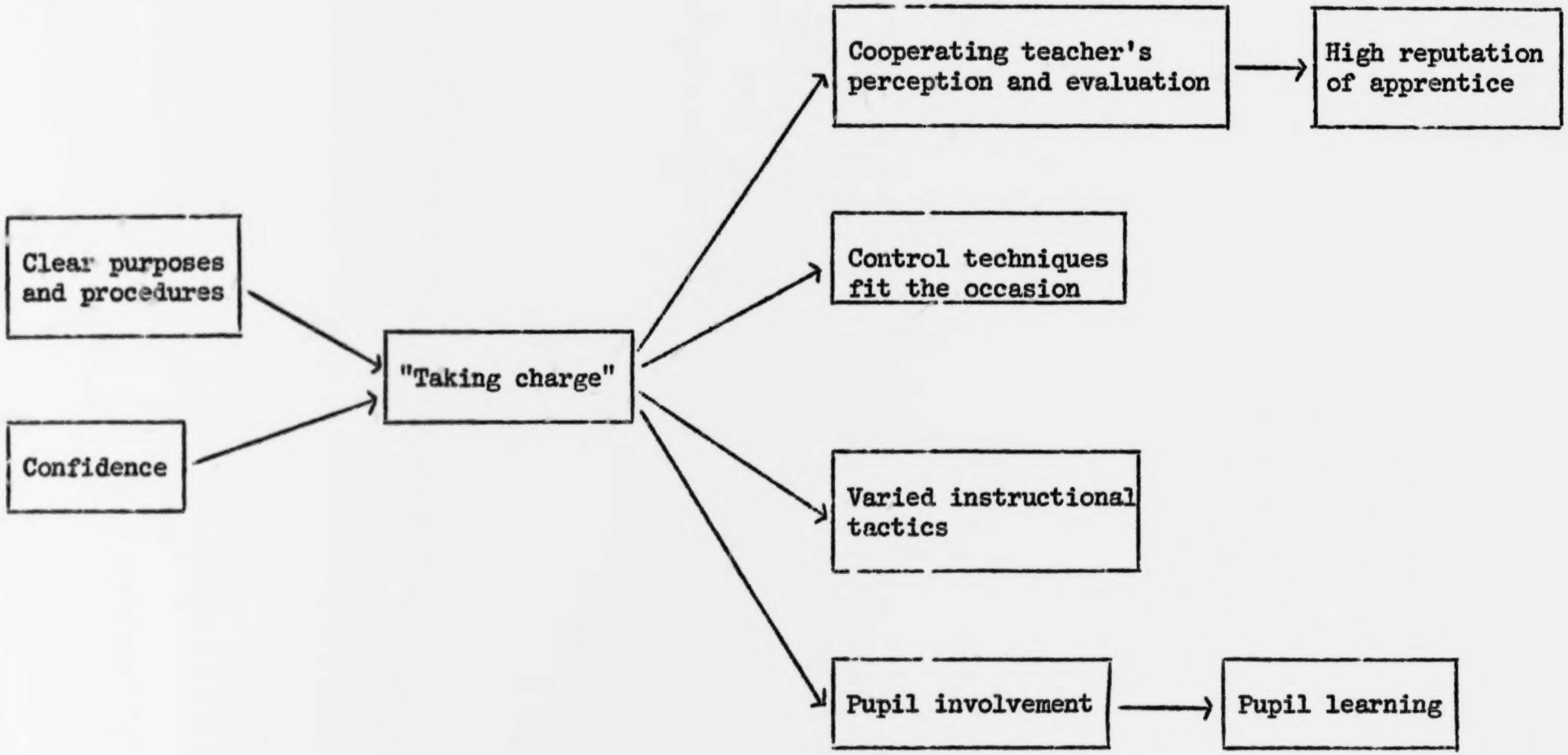
Clear purposes and procedures
Confidence
"Taking charge"
Cooperating teacher's perception and evaluation
High reputation of apprentice
Control techniques fit the occasion
Varied instructional tactics
Pupil involvement
Pupil learning

Figure 4.6 Implications of "taking charge."

We find his use of "authority structure"to be synonymous with the teacher's use of "classroom control," and a more general and instructive way of looking at an important problem.

Apprentices and cooperating teachers vary in their ability to establish an effectively functioning authority structure, ie., classroom control, and they not infrequently vary in their ideas of how this is to be accomplished. Other factors related to establishing authority in the classroom are the formal and informal understandings in the school (the position of the principal and/or the informal agreements among teachers) and the socio-economic status of pupils in the school. When there is lack of congruency among these variables the apprentice is likely to find himself in the position of having to live with ambiguity and resultant tensions. When the lack of congruency exists between the cooperating teacher and the apprentice the latter almost always adopts the behaviors of the former.

The first lessons taught by the apprentices in the "levels" program exhibit a concern for discipline and control of pupils, giving explicit instructions, pace, covering the material, and carrying out the routines of the classroom. Getting pupils to come to grips with materials and learning problems seems important to the apprentices. Summary interpretations from the field notes identify this as an effort to build an authority structure, although the apprentices do not state the problem in these terms. Put another way:

> The apprentices problem was to work out a means whereby when he gave a verbal order, command, suggestion, or as he or a teacher would probably put it, a simple direction, the pupils would follow it with a high degree of probability. . . All this suggests that one of the basic parts of the social structure which must be set up, and perhaps be set up early, is what we can call the authority structure. The ins and the outs of this as it relates particularly to the behaviors of the teacher and the personalities of the children seem to be of crucial importance. . . (9/23)

The apprentices are attempting to behave in ways, i.e., set conditions, that will help them to establish their own authority structure in the classroom. We will see later that the behavior of the cooperating teacher can either facilitate or make this task of the apprentice more difficult. The following observations taken from the field notes will serve to illustrate the kinds of behaviors and the kinds of conditions the apprentice is concerned with.

> Miss Downes, the apprentice, gave instructions to the pupils to place their pencils in the tray on the desk and to face her. She said: "I will say a number, put the number next to the one (1) on your papers. Twenty-two. (Pause) If you have finished turn your paper over and put your pencil down. Then I will know you have finished writing the number."

> "You should not talk. I want you to put your pencil inside your desk. Sit down and face me. Let's put our feet in front of us."
>
> At the end of singing Miss Downes said: "That was very good, do you want to sing once more?" This brought an enthusiastic yes from the class. At the end she said, "very good."
>
> "Do you have everything off your desk? Who are the helpers to pass the graded papers back. . .Keep your feet in front so that the helpers can get down the aisle to pass your papers back."
>
> I was able to have a brief talk with the apprentice following the lesson. During the course of our discussion she said that "discipline and control of the pupils is very important. This is necessary if you are going to complete the lesson that you had planned." (9/14)

The impact of the numerous, simple and easy to respond to directives carried an important load in an earlier analysis (Smith & Geoffrey, 1965, 1968). We called it "grooving the children."

Further complications in the problem of developing classroom control and the kinds of disciplinary measures that are to be taken comes in for a fair amount of comment. This centers around the fact that the college does not condone corporal punishment and that in a number of the schools the teachers use corporal punishment. The discrepancy in expectations creates problems for the apprentice. The following excerpts from the interview notes point up this problem.

> One of these centers on a role conflict problem. . .Miss Frank is seeing things that she doesn't think ought to happen in the school, such as: no free activity period in the Kindergarten and corporal punishment of the children--hitting them with rulers, or paddles. Some of it becomes visible to her supervisor. . .when she conducts a class. The supervisor reads her out for this. At the same time she feels she can't tell the teacher how to run her business. (10/7)

The notes from the same interview specify two further aspects of the "2x2", brevity and Thursday alone, which complicates the learning of classroom control.

> The short interval of time which the student teachers are in the room suggests also that they have to appeal to the more immediate and dramatic control techniques. They don't have time to develop the relationship which will enable them to use a variety of other potentially more subtle punishment techniques--withdrawal of attention and affection.

> Miss Frank, and from her comments most of the apprentices she knows, is terrorized by the Thursday alone with the kids. It leads them to adopting relatively tough and punitive orientations so that the kids will be aware by Thursday that they won't get away with it. (10/7)

The question needs to be raised also as to whether, in fact, the harsher control techniques are most appropriate for the apprentices. Conversely, is it possible under the two-week by two-week organization to help apprentices establish more lenient techniques for exercising control over members of the class. Blau (1955) in speaking of leniency and disciplinarianism among supervisors indicated that greater production is achieved by subordinates under conditions of leniency.

> . . .leniency in supervision is a potent strategy, consciously or unconsciously employed, for establishing authority over subordinates, and this is why the liberal supervisor is particularly effective. (Blau, p. 71)

Other difficulties related to the establishment of an authority structure by the student teacher are concerned with the way in which cooperating teachers view their role in the classroom while the apprentice is teaching. Some teachers do not intervene directly in the classroom situation while the apprentice is teaching, but rather, make a point of talking with the apprentice after the lesson. However, in a number of instances cooperating teachers intervened directly in order to control the class, alter the course of teaching events, to correct the apprentice or the pupils. Some specific illustrations will make the point.

> In the Roosevelt School, the cooperating teacher has quite regularly made comments throughout the lesson, has made changes in the program, and has offered suggestions verbally to the apprentice. As the apprentice is teaching, the cooperating teacher joins in and makes contributions to the class. She does not remain out of the picture and does not give the impression that the student teacher is,in a real sense, in charge of the class. Another example occurred today with Mr. Evans at the Lincoln School. Mr. Evans was conducting a reading group and the cooperating teacher on several occasions interrupted to ask the children to repeat a comment, to speak louder, to read with more emphasis, to please stand when reciting. All these comments were made from the back of the room. The apprentice was supposedly in complete charge of the lesson, but was not given any autonomy. The reason given for this was that the cooperating teacher would be taking over the group in two more days. . .and that she wanted to be sure to have certain habits established.
> (9/29)

The short span of time in each classroom has been the source of considerable comment. As the two-by-two pattern requires rapid incorporation into the teaching situation not much appears to be left to chance even though there are variations among teachers. One of the factors that appears important is for the student not to "rock the boat." This could present hazards for the cooperating teacher. The provision in the pattern for observing, teaching one lesson, two lessons and so forth, seems geared to maintaining a considerable degree of stability in the ongoing situation while providing a safe step-by-step involvement in teaching. The two week experience is then terminated before the apprentice has an opportunity to truly develop a social system in which he has any real degree of authority or autonomy. Mrs. Abbott at the Garfield School comments as follows:

> Mrs Abbott indicated that most cooperating teachers "hate apprentices." She further commented that "I have a feeling that we disrupt the organization." By using the word "hate" she did not intend a personal affront but rather that student teachers tended to be a trial and upset the routines which regular teachers have. In conjunction with the above she had the feeling that a student teacher must never attempt to even come close to usurping the authority of the teacher in the classroom. She indicated that on occasion students have come to her in preference to the regular teacher and she has had to say: "Please don't leave your seat, and never come to me, go to your regular teacher." (9/23)

Not all apprentices succomb easily to the dictum of not "rocking the boat." The cooperating teacher at the Johnson School commented on the apprentice, Miss Frank.

> Miss Frank has problems in control. Her cooperating teacher thinks that the control problem centering around the apprentice insisting upon things being done her way is the major issue in the present apprenticeship experience. As she sees it, most of them (apprentices) don't do this. From my observations, if Miss Frank is not conforming to the expectations of the cooperating teacher yet, she is well on the way to changing to meet expectations. (9/29)

Both across the two-by-two organization and within it there appear to be certain discontinuities that make it difficult to develop an authority structure in the classroom. The structure that is established appears to be that of the cooperating teacher which has carry-over value for the apprentice. When the given structure is functioning well the apprentice seems to have little difficulty. When it is functioning poorly the apprentice partakes of the difficulties encountered by the cooperating teacher. Across the two-by-two pattern discontinuities appear to be as follows: there is little or no advance preparation on the part of the apprentice or cooperating teacher and so induction into the new situation is commensurately more difficult; the apprentice skips grades and so the developmental sequence is interrupted and the adjustment of the apprentice is a more radical one (this is expecially true of the shift from the seventh grade back to the primary levels along with a change in schools); and the authority structure itself varies from teacher to teacher.

The more general aspects of this analysis we have labeled "complications in learning to develop an authority structure" and have presented it graphically in Figure 4.7. The interrelating of items from our earlier discussion of latent dimensions seems very critical.

Insert Figure 4.7 about here

The discipline as punishment phenomenon

The wide range of situations across pupils, cooperating teachers, principals and apprentices gives rise to considerable variety in the ways in which student teachers approach the "discipline as punishment" phenomenon.

> Another issue that came up concerned the punishment phenomenon. Miss Frank opened this up in terms of the fact that her cooperating teacher yesterday, some time after I had been in the building, whacked a kid with a ruler. It didn't do any good this time and the kid just got mad and continued to sit at the back of the room and flip pages and bang his books and the teacher basically ignored him. Only in Mr. Jennings school do they send them out in the hall and here it is usually to sit at their desk and do their work. In Miss Lawrences school a good bit of the discipline is handled by sending them to the Principal and apparently she really scares the devil out of them. Both Miss Frank and Miss Charles reported some corporal punishment. The teachers sometimes use sending the kids to the cloakroom and Miss Lawrence reported in some detail about an incident when that happened and the teacher forgot the kid and the kid was there for an hour and was crying and was very upset and the teacher in turn was upset at this. Several of the apprentices are reporting also ways that they are learning to handle the kids and Miss Lawrence commented that she really yelled at one kid the other day who had been provoking her consistently and she finally told him to come up and sit by her desk. Apparently she did this with some fire. She also indicated that if he did it once more he'd be out of the room. One of the generalizations I would make here is the extreme variability among schools and how people handle problems of this sort and what the courts of last resort are. (10/8)

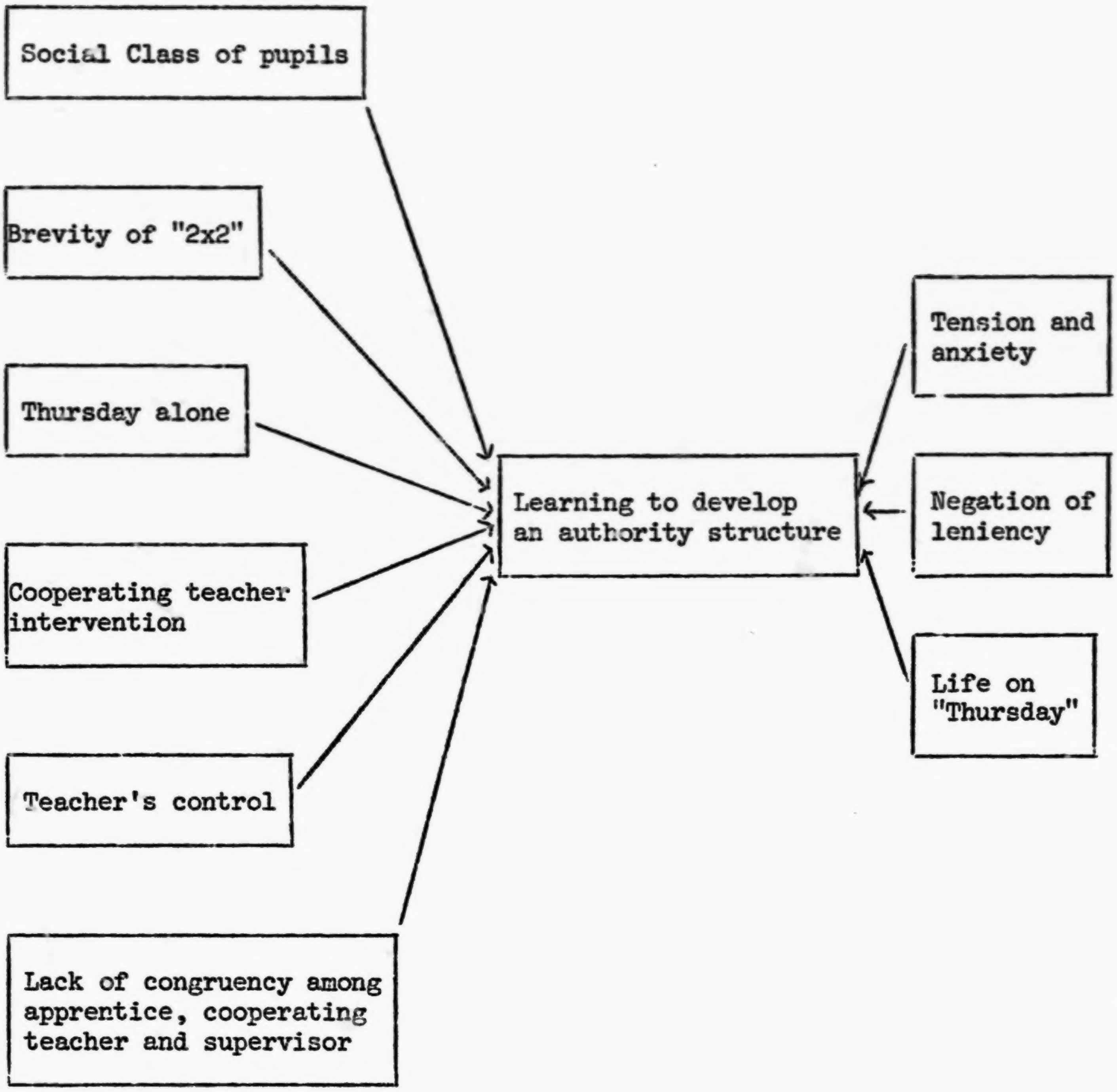
Social Class of pupils
Brevity of "2x2"
Thursday alone
Cooperating teacher intervention
Teacher's control
Lack of congruency among apprentice, cooperating teacher and supervisor
Learning to develop an authority structure
Tension and anxiety
Negation of leniency
Life on "Thursday"

Figure 4.7   Complications in learning to develop an authority structure.

Having "made it" in one classroom and having developed certain instrumentalities for control, one should not sit back on his laurels. Miss Downes at the Roosevelt School talks of her trials in the second grade.

> She commented that every once in a while you get a group where you have to make it all over again. You think you're just broken into teaching and that you're having success and then you have to start from scratch again. She said she could see some improvement in the children but they tend to slip back. They all need attention. She commented that she had done a story with an angel and they had made a bulletin board. She had brought the plactic toy in. Another lesson in which she used the flannel board, the sun, earth, the seasons, and the moon. She said one of the Negro boys seems to have a nasty attitude. One day she used the device, when she was having difficulty with discipline, of putting the noisy children on an island. When she put them on the island they couldn't participate in anything. This seemed to work she said, because they invariably wanted to get back into the act. She commented about her previous work in A-1, A-2 and said that cn the final Thursday when she had the room to herself everything seemed to fall into place and she felt as though she had really accomplished something. About the present class one thing she felt, that if you put them to work helping you that this will take care of some of the discipline problems. In fact, she commented, that there are more problems of this kind in the present class than she had ever run into. There are at least 10 of the 26 children who have difficulty. (12/8)

One of the concerns frequently raised was that in the apprentice's view teachers had very little in the way of punishment techniques that could be used. This feeling expressed for the need to have readily available institutional sanctions that can be applied by the classroom teacher is expressed in an interview with Mr. Hull.

> My other observation with Mr. Hull was followed by a discussion of discipline. Mr. Hull has, for the first time, expressed some displeasure with the discipline procedures in Taft School. He particularly felt that there was just no punishment techniques available to the teachers. He ran through a typical discipline problem and said that if a child becomes too much of a nuisance and calling the child down in class does not help then he's sent to the Principal. The Principal, he said, probably chews them out or bawls them out, and then sends them back into the classroom. He felt that this very limited repertoire of available techniques made it extremely difficult to work with these children. When I pressed him as to possible alternatives the

teachers might have such as detention periods, additional homework and so forth, he said that he felt there should be extra work given to these misbehaving pupils, because without it the teachers are at a tremendous loss to try to handle the classroom.

I posed certain problems, such as the kind of child requiring discipline, typically the child who has not completed meaningful homework or meaningful assignments and additional work which is punishment would probably meet with even less success. Mr. Hull acknowledged that this might be true, however, he still felt there were ways to punish children by either taking away privileges or especially defining additional work to be done, such as writing, to give the teacher some degree of control or authority. He was very dissatisfied with the present procedure of "yell at the children" and when this fails send them to the Principal for additional yelling. I asked him about various techniques and approaches used by other teachers, if he was able to take up any of these at lunch, or recess, or gym periods, etc. and he answered that all of them seem to do the same thing; there was very little discussion about whether the possibilities were open as they seem to take for granted that this was the only way to handle discipline problems. He said the teachers and pupils must leave the building immediately after school, therefore any after-school detention is impossible. The children go home and eat lunch at noon, therefore that detention is not possible. There is the possibility of retaining children from taking part in gym period and he posed this as one possibility.

(OBS: This sounds more and more like Syke's, Capitive Society in which all the rewards seemingly are given out at the very beginning of the confinement and also so much time is reduced in the penitentiary for good time behavior. Since many of the rewards automatically go to the prisoners, such as reduced time for anyone having a job or learning a trade, etc., the guards do not have any immediate rewards to hand out. In somewhat the same fashion these teachers, or any teachers for that matter, have relatively few rewards to dish out other than personal reward power. If this is not well received by pupils the actual institutional rewards one has are extremely relative. This brings a person to impose sanctions given by the institution to help control behavior. In like manner these sanctions are quite limited in scope and consist mainly of verbal displeasure with an ultimate trip to the principal which could be followed by temporary suspension and then permanent suspension. If this is true that the teachers do have a limited set of rewards and sanctions to dole out, this awareness by the teachers must

> have some effect on their own perception of their teaching role. If they, in fact, feel powerless as Mr. Hull as an apprentice moving into the profession does, this feeling of powerlessness should relate to the displacement or to the kinds of flame-throwing behavior to compensate for the deficiency of other techniques. From personal experience I remember the vexation of calling down the same children day after day after day and the real disgust I had with the inefficacy of the classroom teacher. In other words there were just some kids that about all you did each day was to let them go until they got to become a problem and then you yelled at them and then they calmed down for a few minutes and then you periodically yelled at them throughout the day. Just what rewards or sanctions are possible for the classroom teacher I don't know, but it seems to be a legitimate area to investigate.) (10/7)

The complexities of the interrelationships between the establishment of control, what we have called the authority structure, and the discipline as punishment phenomenon continue to involve the apprentices. Several weeks later Mr. Hull had his problems with a fifth grade group. The attribution to the pupils of lack of "inner controls," the cooperating teacher's problems, and the nuances of cooperating teacher and apprentice relationships as sensitively picked up by the children is also apparent.

> Tuesday I observed Mr. Hull teaching fifth-grade at the Taft School. Mr. Hull has mentioned before that he's rather apprehensive about the discipline in this group and is quite fearful of his full day of teaching which will be Thursday. As I entered the room Mr. Hull was finishing a language lesson and it was quite apparent that he had lost control of the group. During the first ten minutes of my visit it was a guess that Mr. Hull spent about eighty percent of his time simply trying to get the class to sit down, to be quiet, to listen, etc. The class seemed to sense that Mr. Hull was on the defensive and none of their behaviors were particularly malicious but they certainly showed at least mild defiance. As he would correct one child on one side of the room another child on the other side of the room would do the same thing. If one child would get out of his desk to throw away paper, Mr. Hull would call him by name, tell him to sit down, immediately another child at the other side of the room got up, went to the waste basket, and threw away a piece of paper. Having finally survived this hectic ten minutes it was time for gym for the fifth-grade class so Mr. Hull, the cooperating teacher, and I went to the teachers' room for the fifteen-minute break. During this time I talked mostly to the cooperating teacher; she expressed her problems with this class. She is a very bright, knowledgeable teacher who admits readily her problems with this group. She stated

> that they had very few inner controls and it seemed that it was a never-ending battle of constantly calling down one child after another to get them in some semblance of order so that teaching could take place. She further explained that she had the better of the two fifth grades.
>
> As you observe an apprentice thrust in a situation such as this the term baptism of fire becomes a real one. The cooperating teacher made several comments today as we sat in the back of the room. One instruction she had given the apprentice was that he should feel free to scold and reprimand children in her presence. She remarked that the usual pattern of apprentices would be to ignore a great deal of misbehavior while the cooperating teacher was present and then when she would leave the room the apprentice would lay down the law. She reasoned that if this happens habitually the pupils will soon sense that when the cooperating teacher is in the room it's pretty safe to raise all kinds of cain. Mr. Hull did follow her suggestion and seemed to react in a similar fashion when the cooperating teacher was present or not present. However, my presence may have continued the impact of an outsider. Mr. Hull made every effort to be firm and did not shy away from disciplining children when necessary, and it was necessary quite often. Again this raises the issue of available sanctions that are open to not only the apprentice but an experienced teacher. However, particularly in the two-by-two program the issue of available sanctions appears to be especially relevant. One of the sanctions that is open to a classroom teacher is the withholding of praise or the withholding of positive affect. In a short tenure apprenticeship there is not sufficient time to develop rapport with the class so that the apprentice can withhold this praise or positive affect. The apprentice coming in for a couple of weeks at a time has the appearance of a long substitute teacher and many of the problems of substitute teachers are transferred onto the shoulders of the inexperienced apprentice. (10/21)

Throughout our observations, the apprentices wrestled with the question of punishment as a disciplinary device, a means of gaining control, setting up an authority structure. Most of our apprentices moved toward a "take charge" orientation, learned to "yell at the kids" on occasion without feeling guilty, tried to break away from the teaching manuals, and began to make the lessons as interesting as they could within the context of the textbook approach to teaching. Toward their "2 x 2" program they retained some ambivalence in that they were not with the children long enough to develop a relationship minimizing punishment, yet they also did not have to live long with what they perceived to be their or their cooperating teacher's mistakes in punishment and classroom control.

Testing the limits:[3] the peppermint stick episode

Educational discussions abound with references to children's "testing the limits" but little analytic literature deals with this problem. The apprentices were learning to handle such situations especially during their Thursdays alone.

> 1:08 Girls are in ahead of boys. One girl has a large peppermint stick and issues the challenge. The dialogue and the play are beautiful as Miss Charles asks her about the candy, indicates it's to go in wastebasket, indicates all of it is to go (she had bitten in half the piece in her mouth). The last part pulls a big laugh from all of the girls who watch. Finally Miss Charles asks her to get a paper towel to wrap the remainder and put in her desk. (OBS: It was beautiful--all good fun.)
>
> 1:13 8 or 10 out for reading. Miss Charles on top of everything as books are passed out, lockers closed, a boy sent back to seat as he was about to throw another boy's paper in wastebasket. They've tried her at least a half dozen ways. She's calm, pleasant, unruffled and in charge. (10/28)

The situation seems to be this: a context of rules exists,one child flaunts the rule, usually this is done openly in front of the person in authority and in front of the child's peers, usually elements of humor exist, and usually the child has every intention of ultimately obeying. The game is that of brinkmanship and credits go to each party according to the inventiveness, the humor, and the calmness they can display. In this instance Miss Charles' behavior seemed to possess these characteristics as she kept talking and quietly insisting. Diagrammatically this appears in Figure 4.8.

Insert Figure 4.8 about here

The multiplicity of events: ringmastership

In elementary classrooms, many strands of events weave concurrently. To handle such a profusion of events requires a high degree of skill which elsewhere we have called "ringmastership" (Smith & Geoffrey, 1965, 1968). On one Thursday, Miss Frank had the pupils alone and was caught in the com-

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[3] See Hentoff, Our Children are Dying, New York: Viking, 1966.

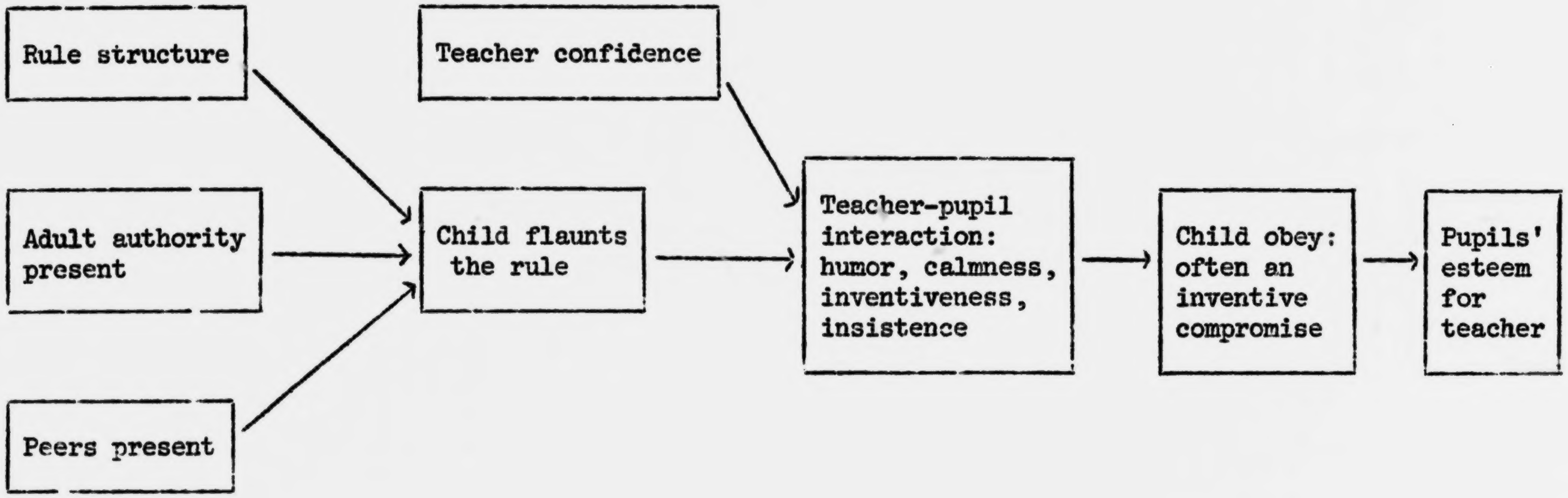
Rule structure
Adult authority present
Peers present
Teacher confidence
Child flaunts the rule
Teacher-pupil interaction: humor, calmness, inventiveness, insistence
Child obey: often an inventive compromise
Pupils' esteem for teacher

Figure 4.8 Testing the limits and teacher reaction.

plexities of the elementary classroom. Our field notes are instructive as a baseline for analysis.

1:10 I arrived a moment or two ago. A mother was just leaving. Miss Frank is acting like a classical school "marm" who is fighting the group rather than riding with it as in the case of the two others this morning. She doesn't have the kids responding to her and takes on the biting, directive commentary across the room.

She's trying to carry out an oral reading lesson with the group in the N.W. corner. The other kids are involved in reading story books, finishing arithmetic and in art work. One boy, a monitor, goes among the others sharpening pencils--generally whether they need it or not.

This art work contrasts with the seatwork-type assignments which pull quieter behavior and less interaction. These activities--cutting paper and tearing it until it curls--have qualities of "let me show you" (OBS: originality?) which tempt (reduce) kids into interaction, all of which is very appropriate except when a third group is having recitation.

Miss Frank has the group in oral reading and recitation. These kids like to read, high volunteering, etc. Miss Frank uses the teachers manual and the readers. She asks them to read for expression--"How they would say it." As the kids stumble on words (e.g., sadly) she has them sound them out.

(OBS: Tough issue on objectives of lesson--oral reading and developing synthesis of skills. It seems that oral reading purposes get lost. May be also that the vocabulary load is too heavy. Kids continue to miss vocabulary introduced with lesson, e.g., certainly.

1:28 Miss Frank comes over and takes one of the wandering girls over by her chair. The pencil sharpener continues to grind, the teasing of paper continues to zing.

1:30 Miss Frank over again. Finishes the lesson. One of kids says one more page and she okays and has them finish.

(OBS: The units of work problem is critical here. Pages, not ideas, stories or more "natural" beginnings and endings. Contribution to meaninglessness seems very critical.)

1:35 Has whole class clear desks and take out health folder.

Sets up competition among the three groups. She walks around as a taskmaster or mild Captain Bligh on the quarter deck. Little of the helpful gliding about that Miss Charles exhibited earlier. She's an inspector checking which group is ready and which is not.

Many of the kids are loaded with papers and junk in their desks. Hunting for health folder--a stapled set of dittos, is quite a task for some.

1:43 Begins quizzing re "the school doctor." Almost all of the children raised hands about seeing the "school doctor." She asks why. Several say "heads." (OBS: Apparently they check on ring worm. One of the kids in Miss Charles' class had a stocking cap.

Miss Frank inquires for further examples: heart beating, ears, etc. She doesn't expand upon this in any extra fashion. The discussion is quite out of hand as some of the kids giggle back and forth. She separates one of the boys from the others.

Someone says "ambulance" and there is long diversion on ambulance. They have trouble pronouncing and she works on it. Ultimately they spell it. (OBS: Quite a contrast in this and the more careful vocabulary development in Miss Lawrence's class.) She has a curious style of quizzing which provokes many kids and circles into diffused reactions, contagion and then she's lost them.

1:57 Considerable enthusiasm as she tries to elicit a "b" in "ambu..." She gets p's, q's, etc. This is terminated abruptly--she turns lights out, as she seeks a control apart from the kind she's generating with the kids excitement. Finally gets word spelled.

She keeps getting sidetracked on correcting "ain't" and "excuse me" after a sneeze.

(OBS: This sidetracking phenomenon seems very critical. Miss Frank's caught up terribly.)

Kids tell about relatives who are doctors (none) and many whose mothers or sisters are nurses. Someone sings out "Chinese nurse" to "kinds of nurse" question. Miss Frank tries to get at practical nurse distinction and this is way beyond them. One child says "unifor" for "uniform" and Miss Frank starts another pronunciation and spelling excursion.

(OBS: Again I feel she lacks clear purposes and structure leading to those goals. The red herrings drag them willy-nilly everywhere. The health lesson becomes a language arts lesson--oral speech, spelling, phonetics, discussion, etc. Within this it's confused also.)

Some of the kids draw and color their health picture. My guess is that this will provoke later trouble--they'll be done when the others are working.

2:10 Finally get the "form" of uniform. She tells them to color the pictures. (10/14)

On the morning of the same Thursday, another apprentice has her group alone. This class is in a Negro slum community. The children are old for the grade level. The classes show a sharp contrast.

10:13 Arrive a little early. Reading lesson pp. 56-57 of Climbing Higher. Kids are reading silently to answer questions raised in the manual.

Compared to Miss Lawrence's class, kids look (and are) much older. Looks more like a fifth grade room.

Miss Charles walks about putting out brush fires, "What's the problem?" "Have you finished the work I gave you?" etc. As she quizzes the kids re the story, some have difficulty with concepts like "fort." As the kids read aloud, it's almost like a whisper and hard for me to follow.

10:20 Books are collected by monitors (OBS: Why not left at seats? Is it because they don't want them to read ahead?)

Remaining time is to be spent finishing up spelling Part D, p. 44 or 45. She moves about facilitating monitors and helping children begin working.

10:25 "Everybody should be in seat and not going until all are ready." Girls line up and go out. She holds boys until they quiet down. One boy says "Quiet" and all do and then they go out at 10:28.

10:45 Kids begin to return. Girls are back.

During the break the cooperating teacher comes in and joins the conversation. Miss Charles likes to have the class alone. It's exciting to plan everything. Keep an eye out for the clock. Work with the kids, etc.

As the kids come back, she begins to impose her own regime on the kids. She liked the more orderly paper passing and monitor approach of her former cooperating teacher and tries it. Differences exist in the class; room was brighter and cheerier, kids more animated, more responsive. She comments that the goldfish she brought has been named "Miss Charles" after her. They've written an experience story about it.

10:50 She starts one group on a spelling assignment. Very clear. What they have or haven't done. Keeps working on kids to have desk in right place, etc. With one boy, who stayed and slept through recess, she draws the line on when he moves his desk back way out of line. As she corrects in a firm way the group settles down. Almost all are working.

(OBS: Operationally she has control--gives orders and they are followed. A simple count on commands and acquiescence will reveal this. Also related to this is her non-flustered approach.)

The boy who was sleeping (he's class president) she interacts with several times. In effect, she takes on the main problem. At one point she says "you can leave," etc. Several other kids watch, listen and go back to work.

Miss Charles has the "non-grudge" quality for she's back helping another boy, near the president and he iniates a friendly conversation which she responds to in kind. One of the boys is interested in her charm bracelet. They spend a few minutes on it and she ambles over to another child which quickly becomes a cluster as she explains, gives directions, and moves the work along. The kids smile, pause for a moment and go back to work. In a very quiet way she radiates.

11:04 Several clusters of boys engage in small noise making. "We have no animals in the room, children." Another cluster throw surreptitiously a pencil back and forth.

Earlier she had talked to me about a "Cuba" lesson the other day. No one had heard of Fidel Castro. She was surprised. They don't have Weekly Readers or other current events material. No money for extras. Her former teacher bought a copy or two and put it on the bulletin board. She'd read it to the kids on occasion and they'd read it at the board. Also the ditto masters around social studies are not supplied by the board. Most teachers buy some of this "out of their own money." The co-

> operating teacher is running off her semester's supply today. Miss Charles had commented about the jam-up at the ditto machine before school this morning.
>
> 11:10 The "teacher as a supervisor" conception comes through clearly here today. The kids are piece work workers on spelling and the teacher moves about altering any barriers which keep production from flowing. The kids have social interests, physical movement interest, etc.
>
> 11:13 Miss Charles takes her president out into hall after another clowning episode. This kind of discussion takes her away from the individual help which occurred during supervision. She's back in within 2 minutes and comments they have just a couple of minutes to finish. She returns other papers.

The ability to attend to several simultaneous stimuli and to keep activities flowing toward goals without losing one's composure, we have called "ringmastership." We think it is a most important core interpersonal skill in teaching elementary school. Our experience with our twelve apprentices was that no one specified the skill, no one identified initial individual differences of apprentices, no careful sequential program was developed to move the apprentices through successive approximations to the criterion. Hypothetically, we would argue that simulation techniques, microteaching, and other such formats could be developed specifically toward this end.

Utilization of pupil monitors

Research projects flow into one another--as they should--and suggest ideas for further testing. In the Smith & Geoffrey (1965, 1968) we were impressed with the phenomenon of pupil roles in the classroom as a way of looking at classroom social structure. These roles varied from the consciously developed monitor jobs to the quite idiosyncratic "classroom personalities."

> As I look about the room, poverty shows up much as at Washington School. The clothes are ill-fitting, buttons are missing, unrepaired tears, etc.
>
> 9:20 Child in regards to lunches. Pupil monitor asks "How many are in the lunch room?" Four raise hands.
>
> (OBS: The monitor social structure seems pervasive in Big City. Seems to overshadow internal or informal system.)

> As Miss Charles moves about checking and helping, she finds crayon on the floor. Asks several kids about it; they shake their heads, "No." Finally locates the girl. Returns it with an engaging smile, half teasing implication of What's it doing here?--non-verbal. Moves on.
>
> (OBS: The structure of the classroom, the processes of the lesson, etc. are very reminiscent of Geoffrey's class at Washington School. The amount of individual attention within the framework of traditional teaching, the amount of work being done, the monitor system, the morning work similar to his "mental arithmetic.") (10/26)

The additional items--individual attention, confident exploring, etc. are dimensions of teaching which we speak to elsewhere.

Ways to begin the day

In spite of Supreme Court decisions and critics' accounts of the demise of patriotism among public school teachers and children, we found few limits placed on the apprentices' learning of varying ways to begin the school day. The observer recorded Miss Charles' experience on the morning of October 26th.

> 8:42 We've had 2 verses of "My Country 'tis...," the Lord's Prayer and the Pledge of Allegience. Miss Charles led these in the sense of calling on specific children to lead out. Approximately 38 seats. About 4 absent.
>
> On the front board is "Morning Work," a simple arithmetic exercise, e.g., Replace N with the correct answer. 1. (5+8)+4 = N. 2. (7+6)+9 = N, etc. The kids settle down immediately as paper monitors pass out small sheets. Another monitor goes around sharpening pencils. Miss Charles takes roll (sits in teacher's desk). The cooperating teacher grades papers in front of the room. Class is quiet, and task oriented. Miss Charles moves about working with individual pupils. (10/26)

While the classrooms varied in the range and kind of initial activities, most of the apprentices had experience with a number of alternatives. The functional implications we have explicated in Figure 4.9.

Insert Figure 4.9 about here

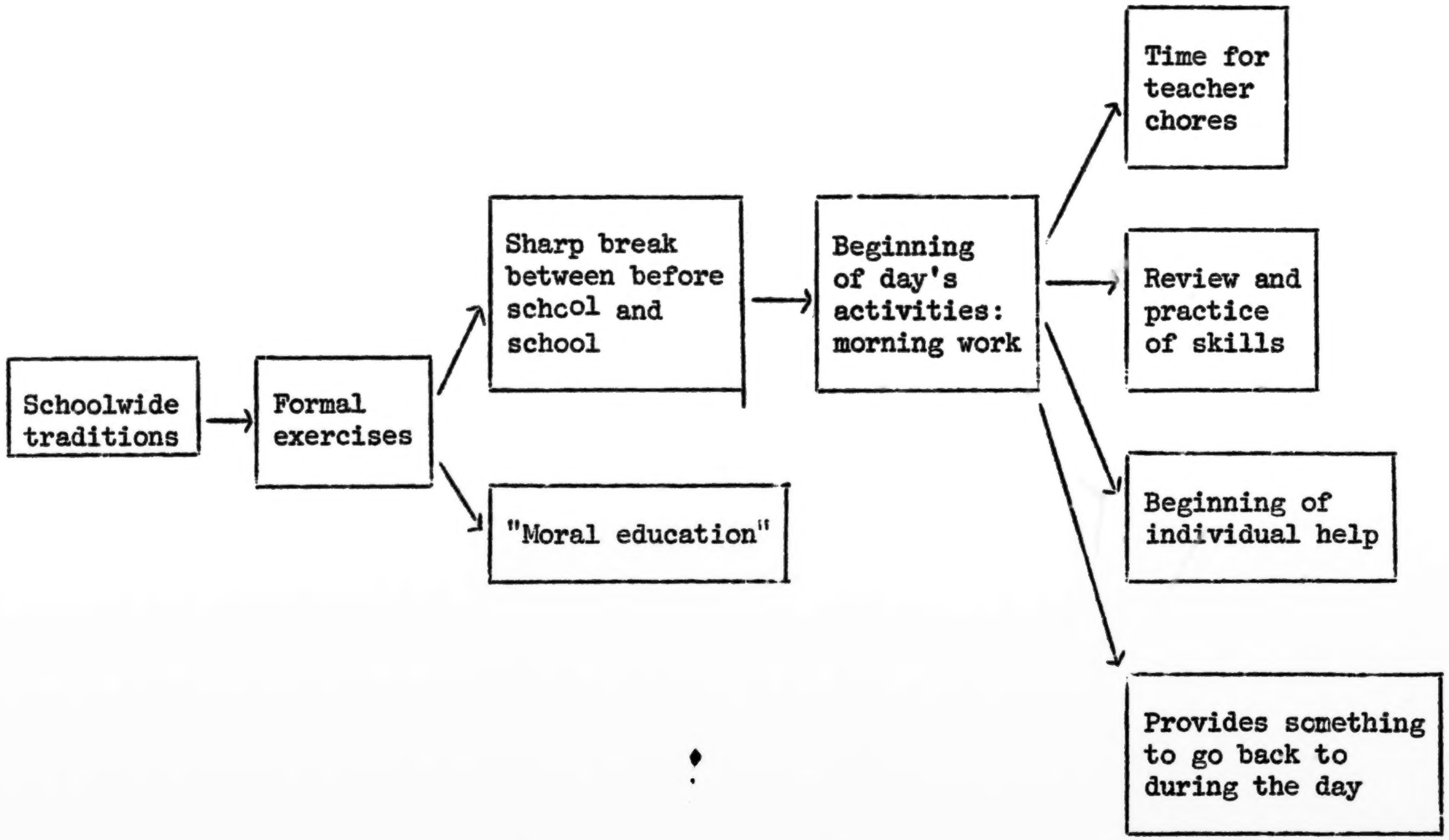
Schoolwide traditions
Formal exercises
Sharp break between before school and school
"Moral education"
Beginning of day's activities: morning work
Time for teacher chores
Review and practice of skills
Beginning of individual help
Provides something to go back to during the day

Figure 4.9 Functional implications of "formal opening exercises."

SKILLS IN LESSON PRESENTATION

Introduction

The essence of teaching in Big City, in the eyes of everyone concerned--supervisors, principals, cooperating teachers, and apprentices--is the presentation of a lesson. Behaviorally, a lesson involves a period of time, usually twenty minutes to an hour, in which the pupils are exposed to a series of stimuli, usually verbal, to which they are to make a series of responses. The intent is that the pupils response repertories become altered in certain defined ways. In effect, they know now certain information, that is they can specify names, dates, and places in language, social studies, and geography. They can perform such varied operations as writing sentences and paragraphs and computing sums, products, and quotients which earlier they could not do at the appropriate signals or cues. Typically, in Big City the textbooks are assumed to contain most of the desirable stimuli to be converted into the pupil repertory; while the teacher's task, in part, is to supplement this, her major function is to initiate the pupils into the programmed textbook materials.

The fact that everyone agrees upon this provides a social reality as a criterion of teacher competency. Wittingly--or unwittingly--it provides a definition of the "good" teacher and it provides a definition of the goals of the teacher training program and its culminating aspect, the apprenticeship. As researchers, one of our important tasks involved specifying analytic units and dimensions of "skills in lesson presentation."

The obvious categories: subjects by grade levels

Among the more manifest goals of the "2x2" program was City Teachers College's desire that pupils experience and learn to present lessons in all eight areas of the curriculum and to all grade levels from kindergarten to the eighth grade. In a very real sense, our apprentices partook of experiences which taught them about spelling, arithmetic, geography and so forth with children from six years to sixteen years. Such an accomplishment is no mean attainment. As we have commented in several places, principals and school administrators in Big City and its suburban environments have strong convictions that the apprentices have accomplished these objectives and can move into initial positions at any level and teach, present lessons, in any area of the curriculum. Our records, and this report, are full of examples of apprentice involvement in all phases of the curriculum.

Multiple functions of an arithmetic lesson

One of our major criticisms of much current classroom analysis is the sorting of particular teaching behaviors into mutually exclusive categories, e.g., this is substantive, this is group management, and so forth. We found our apprentices learning that action they took had multiple outcomes. The tone of one's voice provokes compliance and interest as well as cues for intellectual processes.

1:05 Mr. Jennings apparently has had his hands full this morning. He has them involved in a writing assignment which looks like it grew out of a punishment. The kids came in noisy and tried to take advantage of him. He told them to quiet down, to take their seats (after many rushed up for paper). He determined the paper monitors, and he had them pass out the material, etc.

1:10 "Take everything off your desks. Do you remember what the sentence said?...Take out your arithmetic book... Open to page 41." He begins on equation 3 x 9 =

(OBS: Group shapes up very neatly.)

Moves on with other ways to write 3 x 9 = 27. One boy says 26 + 1 = 27. Mr. Jennings tries to have someone else. Noisy erroneous guesses. Finally someone with his help gets to 3 x (5+4) = 27 and 3 x 5 + 3 x 4 = 27. Kids now are very task-oriented and solve the problem. Beautifully absorbed in the work. Quite excited, volunteer, etc. All the nonsense is gone.

Has children take out sentence paper. Brings three to the board and has them work on: 5 x 10 =

1:19 A messenger in. Class is quiet as Mr. Jennings tends to it.

Lesson hits rough spot. Kids have trouble at board. One he helps simply and accurately. Another 4 + 1 (x 10) gets into trouble. Instead of working on this he has them go back to their seats. Reviews a problem. p. 41 of the book. Rows of different colored stars, to get a principle: break up numbers into parts and work it. Returns to working problems on board.

(OBS: The strategy here seems to be working through examples until concepts and habits are both attained. Kids work them individually and collectively. Presumably all go through each. Basic structure of the material lies in the text rather than in the teacher's head.)

Mr. Jennings picks up next problem; the kid has done the wrong one. Mr. Jennings adds a bit to it and goes right ahead without skipping a beat.

1:32 Has the kids pick up on problems 7 and 8. Kids all volunteer to go to board. He picks 3 boys for "This time." Others are supposed to work at desk. Mr. Jennings gets fouled up on the numbering of the problems. They work them through.

Mr. Jennings asks for 8 x 14. Works through that: 8 x (7 + 7). One of boys needs help.

1:40 Helper has right process but wrong answer. 56 + 56 = 102. With help she corrects herself. "Let's do one more, a hard one. . . 9 x 18..." They solve it and give several ways.

1:47 No assignment: some boos and some oohs. (10/21)

The critical point here lies in the observer's interpretive comment that the arithmetic lesson "shapes up the group neatly" and the later comment of the lesson's effect upon "concepts and habits." The ability to attain the blending of multiple objectives is an important aspect of skill in lesson presentation. The subsidiary skills of solving the "rough spot" seem critical also. As we observed the process the elements included 1) direct verbal help, 2) returning the erring children to their seats, 3) reviewing an earlier illustrative problem, 4) verbalizing the underlying principle, 5) returning the pupils to the blackboard, 6) identifying erroneous problem selected by the pupil, and 7) integrating it into the lesson. The artistry in Mr. Jennings performance demanded by the complexity of this process seems to be an important outcome of the "2x2" experience.

Kinds of Lessons by Objectives

It is possible to dimensionalize lessons and related teaching skills in terms of the objectives involved. Among a variety of possibilities we focus on a "creative" lesson and a lesson which had "multiple academic goals."

The creative lesson

Rarely did we see lessons which deviated far from recitations and textbook exercises. On occasion an apprentice presented an original and novel lesson. The impact seemed quite great.

8:45 Begins lesson on "volcanoes." Has a plaster of Paris model. Children have brought materials. One boy brings Life magazine. Kids are very attentive. (This is a big contrast to confusion and getting settled before. Cooperating teacher said that the confusion and conflict was a carry over from the bus.)

As first child reports, Miss Lawrence holds pictures, amplifies briefly as he goes along but mostly it's his show. At conclusion she puts "erupts" on the blackboard.

On the second report she moves to shape. "Like an upsidedown ice-cream--" Prompts "cone" and writes it on board.

Third boy tells his story with his book. Pictures are small, Miss Lawrence suggests "passing it around."

8:57 Continues. Kind of like a "telling time." Pictures spill over into earthquakes and dinosaurs.

Some of the kids, "I didn't read anything but I've got a book with a picture of a volcano."

Another has copied a picture from a World Book.

One boy reports regarding "pomper" and "covered town and found 25 skeletons." Miss Lawrence has information to elaborate a bit on each of these contributions. Keeps urging, take turns, being polite so others can hear.

(OBS: These blend in very neatly with the group activities and facilitating toward goals.)

New word used by another, "lava." She has a real knack of highlighting anything new.

Incidentally none of the transportees has contributed. Most have listened quite well.

9:03 Miss Lawrence has a chart she's made illustrating the cone, the magma, and the lava of the volcano. As kids ask questions she elaborates. "What happens if person near crack?"

Asks for assistants. Shades and lights. Takes kids nearby to the requirement. Asks Greg to come help. (He's one of transportees.)

Lights fire amid oh's and ah's. Afterward they are all excited by the residue of lava. Very brief discussion.

9:15 She passes out ditto with picture. (10/14)

Insert Figure 4.10 about here

Multiple goals in language arts

Within every observation, a number of significant items for analysis occur. In early October we note the repressive atmosphere, the ability of the cooperating teacher to vary her behavior between the children and the observer, the demands of the position or role of the teacher, and Miss Frank's learning to teach language arts. In this instance, she is involved in the complex process of a lesson which has multiple goals. It is early in the morning, and the field notes capture the episode this way:

8:36 Portable. Kids not in until bell--door is locked and shade is down. Almost every comment of the cooperating teacher has been directive or threatening.

When she talks to me she is most pleasant. The determinants of the "role" of teacher must be intense.

Miss Frank comments "I'm not going to repeat it again" regarding a spelling sentence. (She's learning.)

(OBS: It may well be that these many trial short learning episodes really do the job too well.)

Kids look to the cooperating teacher regarding forming a "capital L." She refers them to Miss Frank.

This morning the whole atmosphere is punitive, rushed, and sterotyped. Several monitors in and out with messages and equipment. She's polite and cordial with them.

8:50 "The wood fell on my poor foot." The kids listen twice, and repeat, orally, and then write. The cooperating teacher has found this to be most effective. After the 5th sentence, Miss Frank goes back over and the kids "proofread" the sentences.

(OBS: This probably gives her a different view of

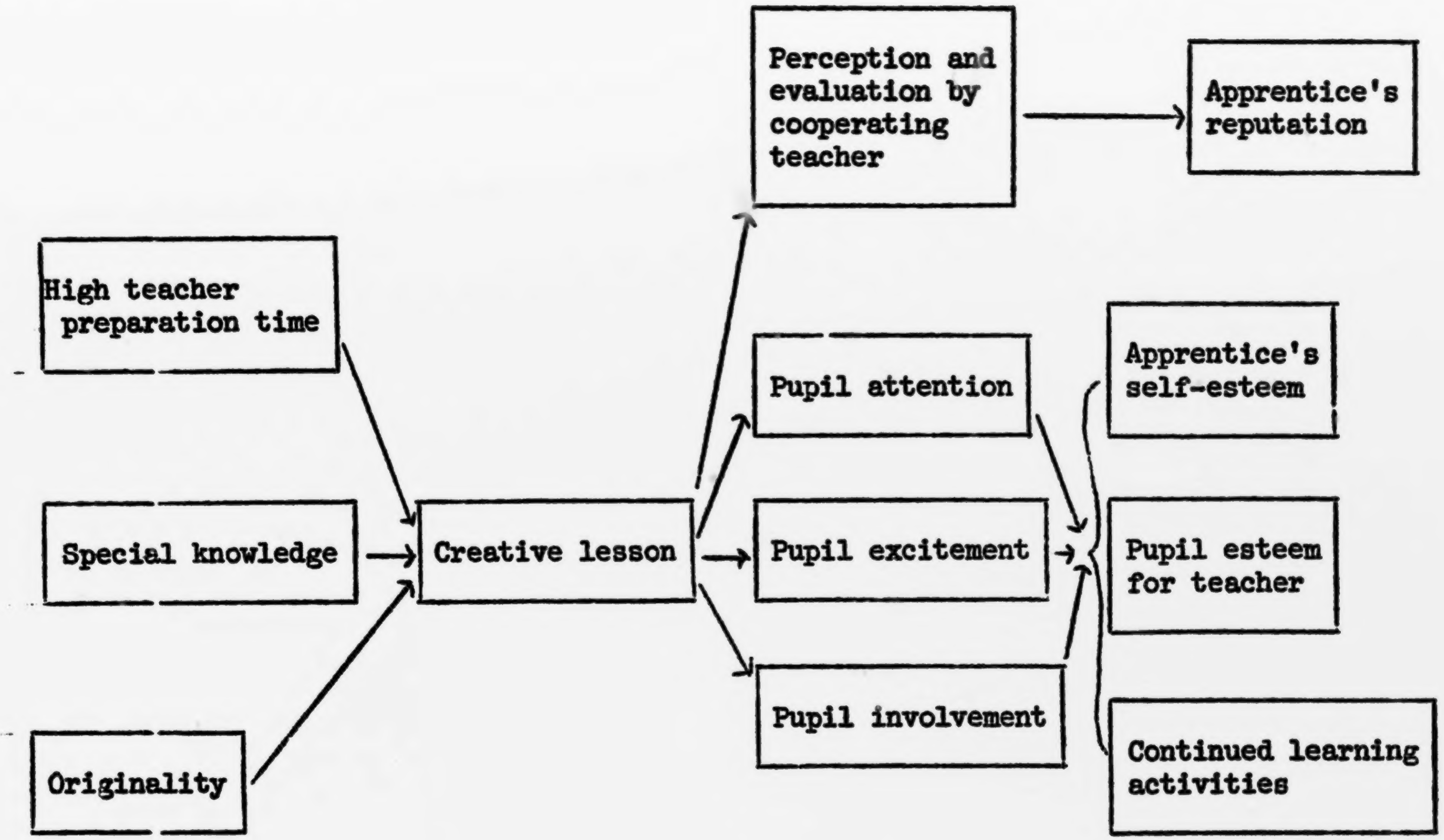
High teacher preparation time
Special knowledge
Originality
Creative lesson
Perception and evaluation by cooperating teacher
Apprentice's reputation
Pupil attention
Pupil excitement
Pupil involvement
Apprentice's self-esteem
Pupil esteem for teacher
Continued learning activities

Figure 4.10 Antecedents and consequences of the "creative lesson."

spelling techniques.)

Combines spelling, long and short oo, grammar and
penmanship, etc. (10/7)

In retrospect, as we analyze this episode we are struck by the complexity of the twenty minute period. Several parts of the curriculum have been introduced in a single lesson. The finding of operational vehicles, as represented by this approach to spelling seems a difficult and largely unanalyzed issue in the psychology of teaching. It is crucial as are other such elements as clarity, coordination and ringmastership.[4] The single lesson alternative seems to lead to pupil learning of individual elements as well as certain transfer and synthetic goals. We have diagrammed this in Figure 4.11.

Insert Figure 4.11 about here

Teacher Behaviors in Lessons

Giving directions

Among the many things that apprentices learn is skill of giving directions or instructions to pupils. The contexts in which this teacher behavior occurs and the varied ways in which the apprentices deal with this phenomenon of the classroom sheds light on the problems of learning to teach.

The language of directions takes different form. The language is both discursive, i.e., in both verbal and written form, and non-discussive, i.e., it may take the form, in part, of visual demonstration. Further, giving directions or instructions may turn out to be a one way street with the apprentice giving the instruction and the pupil following through, or the apprentice may involve the students in reading directions and check their understanding of them through a pattern of questions and answers. This pattern can be with the pupil merely responding to teacher direction or it may involve the teacher taking cues from the pupil and altering his behavior to take into account the

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[4] This concept arose in our study of a slum classroom (Smith & Geoffrey, 1968) and refers to the teacher's skill in handling simultaneously multiple strands of events--some instructional, some management, and some attending to outside interruptions.

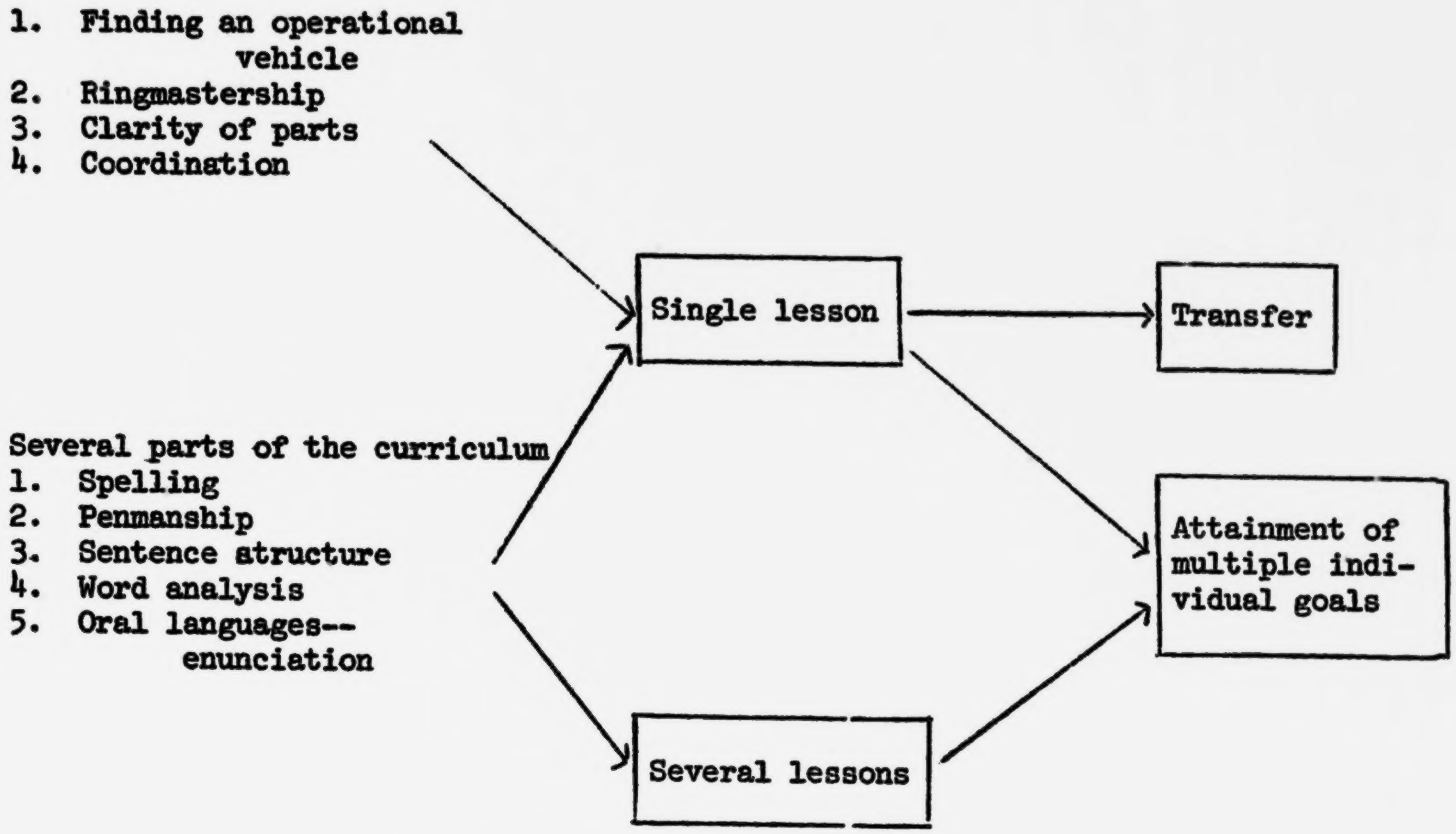
1. Finding an operational vehicle
2. Ringmastership
3. Clarity of parts
4. Coordination
Several parts of the curriculum
1. Spelling
2. Penmanship
3. Sentence structure
4. Word analysis
5. Oral languages--enunciation
Single lesson
Several lessons
Transfer
Attainment of multiple individual goals

Figure 4.11 Attainment of multiple goals in the single lesson.

needs and wishes of the pupil. In this latter case you find a kind of mutuality in which the pupil appears to have some kind of "fate control." This situation is not one sided, the pupil is not totally a "pawn" in the game.

Implicit in all of the above is the question of sanctions, both stated and unstated, and the forms they take. Let us now look at some examples from the fieldnotes.

In the following class situation two reading groups have been given seat assignments and the third group is working with the apprentice. They are reading a story silently and then questions are asked by the apprentice. He also keeps an eye on the other two groups.

> 9:37 Group is reading silently--the cooperating teacher breaks in with "Mr. Evans please tell me if anyone uses his lips to read, they don't belong in this group." (Again, the threat to pump in achievement.) Mr. Evans: "Who's not finished? O.K. Slowpoke, let's go." (Mr. Evans' former teacher was more formal in speech and manner. Mr. Evans has switched somewhat in language patterns perhaps due to cooperating teacher.) Pupils finish reading, books are closed--discuss story--again loud voices, standing when speaking and complete sentences are stressed. (It's such a darn rigamarole to answer a question that you really have to want to speak to volunteer an answer. Really, they are reinforcing the nonresponding of pupils.)
> Mr. Evans calls down group 2 for disturbing.
>
> 9:45 Group reads spot sentences to answer questions by Mr. Evans.
>
> 9:55 Emphases on form of reading, commas, periods, etc.
>
> Cooperating teacher continues to roam the room--making comments and suggestions to groups seated at desks. Groups 2 and 3 have been doing seat work for past thirty minutes. (9/29)

The pattern of assignments among three groups, the distribution of materials, instructions on folding papers, the conduct of a reading group interspersed with control comments to other work groups, bringing in of supplies and the use of monitors at the conclusion of the lesson all appear as a smoothly coordinated series of teaching acts in the following excerpt from the field notes. In contrast to the previous excerpt where there was heavy emphasis upon the form of the communication--stand, use complete sentences, find the sentence in the book, form of reading, commas and periods--the following lesson appears to place more emphasis upon the meaning of the communication. As a consequence there is a much livelier exchange with many volunteers trying to get into the act.

9:00 Apprentice: "Your work for today is on the board. Robins over here, Bluebirds do this one and Cardinals over here." Apprentice distributes paper and tells them to fold it into 8 parts. On the board is written 3 separate assignments.

Robins have letters n, p, s, b, t, w, m, f
Bluebirds " " c-k, j, n, t, w, p, b, s
Cardinals have " y, l, r, v, h, c-k.

Apprentice distributes readers and pictures to each Cardinal. Apprentice warns each group to be quiet as they work. Robins are still a bit free with their talking. Apprentice asks Cardinals to look at their pictures and match letters, i.e., Y is placed on board and children bring forward yak, yellow, yoke, yarn, etc. (Apprentice's voice rather flat and unexciting.)

Apprentice: "Too much talking over here (Robins). Cheryl, I told you once!"

Continues with "r" sound--row, rocket, etc. Lesson seems pitched well at this group--several in group can do matching rather well, others have difficulty.

9:10 Apprentice: "Turn books to page 77 first. I'll read you a story and I will leave out a word and you tell me which one would make sense. I'll tell you the first letter." Apprentice cautions: "Bobby, David, do your own work." (They've been talking in Bluebird group.)

Apprentice continues similar exercise with beginning consonants--children do well--especially in contrast to downtown schools. Apprentice asks one child to use a complete sentence--this is the first I've heard here at Grant. Also no pupil is asked to stand and volume is not stressed--emphasis is on content of communication and not form.

9:20 Apprentice goes through page 77 with group reading sentences for them and checking each step of the way for understanding. Apprentice asks one child to speak louder so another child in group could hear. Again emphasis was on function not form--child did not have to repeat it for me or for child in another group but only for other group members. Many volunteers for answers--usually every child volunteers--these children are reinforced for responding, not for non-responding.

9:25 Woman comes in with supplies; clock, envelopes, paper, etc., apprentice evidently requested. Apprentice continues through page--finishes--has monitors collect them. (9/30)

The following excerpts relate to giving information, instructions and clarification. In two instances a statement or an instruction by the teacher upset the expectations of some of the pupils and required the teacher to engage in further acts of justification and/or explanation. The further question raised in these field notes involves the nature of the educative process for the apprentice who has to cope with these pupil behaviors.

> "You have five minutes more." Pupils groan. "These aren't going to be graded so you don't have to worry."
> Pupil: "They Ain't? I did all that work for nuttin'?"
> Apprentice: "No you didn't, if you have them all correct today you'll get them all correct tomorrow."
>
> Apprentice: "Try to finish the problem you're working on--you have one more minute. Now listen carefully, if finished go over all the problems for the test tomorrow. If not finished do those problems tonight. I'll collect papers now and go over them to see where you need help and we'll have a short review tomorrow. Now quietly take out your language books--put arithmetic books away. Turn language books to p. 22--yesterday we talked about subjects and verbs. Check the exercises. Roy read the directions." (9/28)

Becoming a computer program: feedback

Recitations share many characteristics with programmed learning or computer assisted instruction for stimuli are presented to the children who respond and receive feedback as well as new stimuli which branch in appropriate directions. One of the learning outcomes of the apprentice is learning to become an effectively programmed computer or teaching machine. Miss Frank has had the fifth grade children working on a crossword puzzle as part of a language arts lesson. She has the multiple problems of incorporating the teacher's manual as the initial program and developing questions which provoke few errors. The field notes describe it:

> Miss Frank continues through by giving concept, e.g., "frozen water" and looking for label. She gradually moves away from her manual but is still quite dependent.
>
> (OBS: After reading Bellack last night, I'm reminded of the difficulties Miss Frank has in raising questions which the

> kids can understand and which facilitate reaching the immediate goal of eliciting the answer, which in turn is a step to finishing the lesson.)
>
> 9:54 Finish the puzzle. (10/21)

And later, the multiple pupil aspect of the classroom as compared to a tutorial or single pupil with his individual programmed text or computer arises.

> In the recitation, when errors occur, Miss Frank gets help from others but there is kind of a discontinuity in that the person who erred is left hanging with no closure as to why they had made the error. (10/21)

Later in the same morning, the investigator spent an hour observing a geography lesson taught by Miss Lawrence. The contrast was marked.

> Miss Lawrence now beginning a geography lesson. Writes "Benelux" on board and breaks into three countries to convey meaning. Little additional introduction to the lesson other than read to find out some things about the country. The kids swing into this immediately. Much like the situation earlier at Miss Frank's school and class.
>
> Miss Lawrence moves on easily. Asks for volunteers to come to board and write the names. Clears up spelling on Belgium and misplaced "i". Asks them about size (less than half of Wisconsin). Teaches "densely populated." Asks regarding sea-coast, climate, growing season. These she fires in rapid order and generally in a sensible and logical fashion. She has these on the tip of her tongue. Only occasionally does she refer to her notes--not a manual. Has the kids look at map on p. 64 to find "low countries." At this point she moves about helping and checking the ability to identify on the map. Moves back to general questions regards "low countries." Asks about impact on wars. Kids raise "high" as a vantage point. She adds "easy movement of troops and armaments."
>
> As kids raise particulars, e.g., "ride bikes," she asks "why" type questions. Also has questions around speculation--what would happen? Inter-relates "densely populated" idea. "Use your common sense." Kids add multiple aspects. Miss Lawrence asks if there is anything else to add. One of girls says, "Netherlands means low lands." She confirms.
>
> 11:10 She passes out ditto maps.
>
> (OBS: Beautiful experimental opportunity in teaching people

to ask questions. Get profile from initial trial. Tape and/or film. Rerun. . .under various sets (especially re goals) and check differences. Tie in with lesson plans and decision-making model.)

Miss Lawrence meanwhile is moving along with names and pronunciations, e.g. Lake Ijsiel (Isell). She has moved toward locating places and noting on back what is important. They are to find this as they read, pp. 91-98.

(OBS.: The above question and answer is so different from the awkwardness of Mr. Jennings as he quizzed the kids about a literature lesson.)

(OBS.: Earlier Miss Lawrence had commented re about the dead quality, she puts them to sleep, of the cooperating teacher who has interrupted in only two ways: pulled maps down--which Miss Lawrence didn't use and she ask about a story in reader referring to Dutch. She also presented some "dead" information re upstate New York and Pennsylvania. She doesn't have Miss Lawrence's ability to move things along.)
(10/21)

The internal control of the questions, their logical order and the variation among probes for facts, for reasons, and for hypothetical events suggest a startling sophistication in a computer program.

Using pupil abilities in recitation

Recitations vary markedly. As the apprentice, in this instance Miss Charles works in arithmetic she's developing several skills, the one under analysis here is the varying abilities for reading problems and clarification.

As the lesson continues the atmosphere seems strained. Coming in on a Monday morning is difficult I guess. No one seems to be in gear. Miss Charles has some trouble picking up cues from kids. She's quite bound to the text. She'd commented earlier that the teachers' edition was most helpful in giving suggestions "the bloody edition" with its numerous red marks.

8:58 As she goes through a sequence of 10's: 20, 30, 40, 50, etc. the rate of volunteering increases. The kids readily know the answers. Suggests some additional cues on level of work and spontaneity.

Miss Charles has a pleasant friendly tone to her voice. Contrast with more punitive Miss Frank. Suggests the M.T.A.I. security concept. She smiles, assumes they are going to carry out the work.

> She has them quite active in walking to and from the board--writing numerals.
>
> Teacher is out. Lesson continues. A bit more talking from the kids.
>
> As the lesson continues, Miss Charles uses one of the boys, a better student,to carry the reading of the problem. She calls on others to answer sub-parts.
>
> As others read the problems they call the words pretty well but don't have any sentence sense.
>
> 9:10 Earlier the P.A. system had called. Now the lunch room monitor is in for a count. Miss Charles handles it all with calmness. She has begun to move about the room as spots of talking and inattention develop.
>
> 9:13 Cooperating teacher is back. Some of talkers quiet down. In the course of writing combinations of tens and ones one child has difficulty in forming an "8".
>
> 9:17 She has just about completed the 2 pages. With care and precision the machine moves on. If the text has been well programmed, the structure should result. Some of the kids are only partly in tune. Some can't answer.
>
> 9:19 Lesson is over. (10/11)

Insert Figure 4.12 about here

Practice in "Transitions"

Kounin has coined the concept of "transition" for his anlaysis of pupil attention and deviancy. As the elementary teacher has skill in terminating one activity and beginning another she has fewer disciplinary problems. The apprentices seemed to be discovering the dimensions of this phenomenon in their "2 x 2" experience. Management, smooth and efficient functioning, seemed the keynote of the following observation. These are key elements for the apprentices in helping them to get some foreshadowing of what will probably happen on the "Thursday alone" with the class.

> Arrived at the school at 11:00 A.M. and went to the room level D-1 and entered. The Principal had been there observing all morning and he noted that now I could take his seat

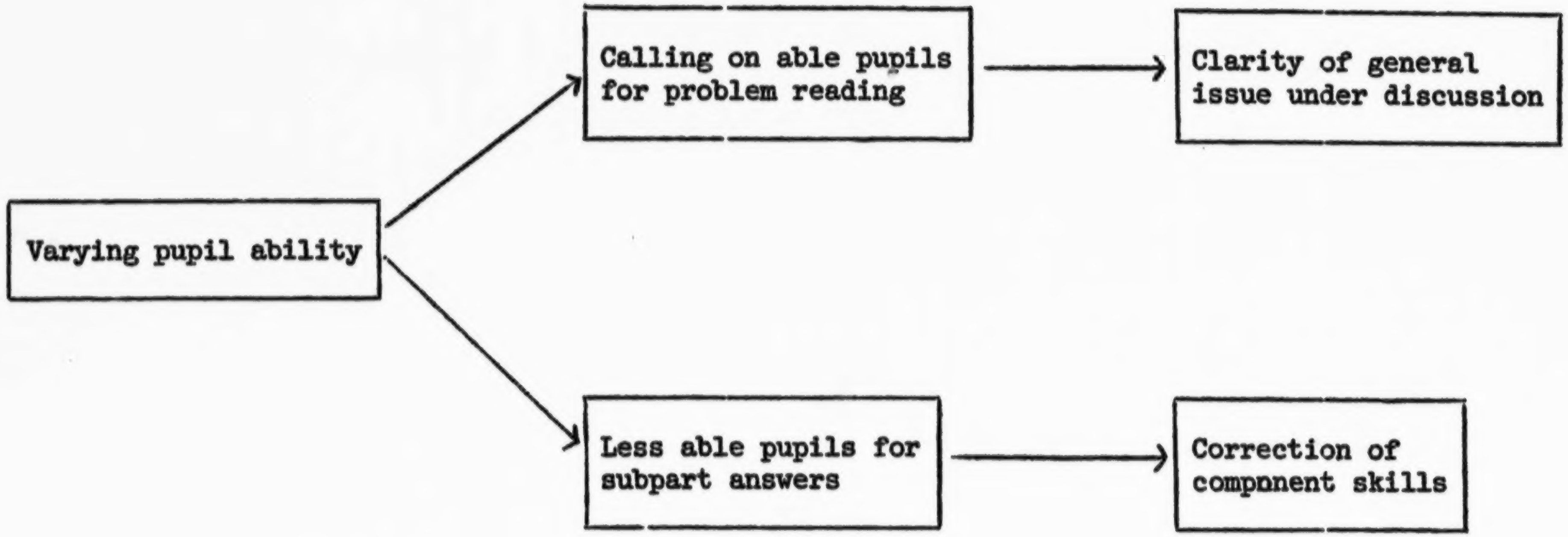
Varying pupil ability
Calling on able pupils for problem reading
Clarity of general issue under discussion
Less able pupils for subpart answers
Correction of component skills

Figure 4.12 Using pupil abilities in recitations.

and observe. He left. Seatwork was in progress. The room was quiet and busy. (From a previous visit and talk with the cooperating teacher it appears she is energetic and vivacious and on top of the job of teaching. She wasn't in the room when I visited the day before and the pupils were carrying on very effectively.) The children completed silent reading and then the apprentice asked some questions concerning the story. "Let's think about this." She questions the students now about the story. "Find the lines" and this continues. "Close your books now." The monitors quickly collected them. (OBS.: What a contrast with the previous one-and-a-half hours at the McKinley School where there was a very difficult control problem.) She passed out seat assignments. "Finish these first and then do spelling and language." The students immediately got down to work.

11:10 As the groups are switched, assignments are given out, furniture moved, teacher picks up a different manual and so forth. Everything is laid out in its place for smooth and efficient functioning. She calls a group to come up front to stand around a reading chart that had been made up by the cooperating teacher. My previous conversation with the cooperating teacher indicated she has made a great many of the charts which are used. For new books, she makes new charts. The pupils who had come up around the reading chart, quietly began to read the words before the apprentice arrived to work with them on it. She now proceeds. "Point to the word. What is this word?" She varies her questions and approach. Students are standing around the chart. She moves now to work written on the board. She changes the words and gives them different endings. She changes the front syllables of words to make new words. The children all respond quickly and correctly. She now says, "Read this sentence and tell me what the new word is." The new word is "break." "Why isn't this broke? How do you know it is not?" The pupils continue discussing and giving their reasons.

11:25 Another shift back to seats. Pass out material. "Read the directions carefully, and go to work." Five minutes later she adds another group. "Clear your desks and take out your arithmetic books. Turn to page 45." (At times it seems the shifts in lessons occur so quickly that the pupils don't shift gears from one area of interest to another. They don't seem to have the opportunity on occasion to complete what they have started.) She now uses packets of sticks of tens. "How can we write three tens?" She has a boy go to the board. He writes 30. "How can we write seven tens?" And so forth the lesson goes. Now they move from writing tens to the problem of subtraction. She begins with four minus two, then she goes to the tens. Eight tens minus four tens, what is the answer? Four tens, and she has them work these problems and practice them on the board.

11:45 "Put away your books" and she begins to prepare to get them ready for lunch. "Those who go to the cafeteria go first" and they get their checks. Others take their lunches down to the cafeteria to eat. Those who go home must wait in the room until noon. (12/9)

Reestablishing and culminating a lesson

In late September, we observed Miss Charles finish a lesson which had been interrupted. The establishment of the earlier context preparatory to moving forward can be a difficult problem involving subtle skills. The twelve minute episode was recorded this way in the field notes:

10:28 Miss Charles flicked on lights which teacher had put off after recess. Gains attention through stretching exercise. Reviews "Little Red Hen" and animals she met: pig, duck, etc. Kids eager to volunteer. Calls each child by name as she raises question.

10:31 Continues reading the story. She does this with drama. Dramatizes story--Peggy becomes little red hen "because she has red sweater." Rows become ducks, pigs, and cats. Red Hen: "Who will help me plant the wheat?" Pigs: "Not I said the pigs." etc.

(OBS.: The oral lesson gives extensive practice to the one girl and considerable to the other children. Only the fringe are lost and then only temporarily.)

10:36 She opens a discussion: plant, cut, take to mill, and eat, to review the sequence. Raises "willing workers" and the various animals.

10:40 The cooperating teacher picks up with additional conclusions--e.g., "Who got bread, and why?" Directs group three to round table with Miss Charles, the apprentice. Group 1 monitors pass out readers. (9/23)

The additional subtleties in the art of teaching include such varied aspects as getting the children's attention, reviewing the first part of the story, actively involving the children, reading dramatically, choosing children on reasonable grounds (e.g., red sweater), developing oral language skills with culturally deprived young Negro children, and reviewing concepts and story narrative.

Teaching a unit

On rare occasions the general "assign-study-recite" definition of teaching and the daily lesson are broken, and the apprentice "teaches a unit." This happened to Miss Frank in December:

> Miss Frank also talked at great length about the fact that she's teaching a "unit on geography." This use of the word unit has some interesting meanings: first, it's a unit in the sense of a section of the textbook, several chapters. It's a unit in another sense that she has responsibility for some continuity in lessons which in a sense she's never had before. As she put it she hasn't taught a unit before. Also, it's a unit in the sense that she is setting up sub-groups of children, three, four, five, per group to work on various phases of the problem. This has kind of grown spontaneously and like Topsy, in that some of the kids were interested in doing some map work, while others had a globe that they'd brought from home, and various artifacts of one kind or another. Miss Frank also has an order put in for some materials from the audio-visual which show rubber products and other processes for making rubber. The kids apparently have initiated a good bit of this and are very interested in it and are active in wanting to do a lot of things. She talked about never having done one of these before and really not having been taught anything about using groups this way in social studies. She was as cheery and spontaneous and creative as she talked as I've seen her. (12/16)

Teaching and reteaching

The apprentice had her first experience of "teach-re-teach". Her own statement, "Think, did you all write the numbers like they are on the board?" provided a form of positive reinforcement for the pupils. The second variation provided by the cooperating teacher was a change of pace--singing.

> The song was "Two Crows Sitting on a Fence." They sang the song through once and then the apprentice said, "Would you like to play a game?" The game was that the boys would sing the song first and the girls would listen, following which the girls were to sing and the boys were to listen. At the end she said "That was very good, do you want to sing once more?" This brought an enthusiastic "Yes" from the class. At the end she said, "Very good." Before singing each time she used the pitch fork to be sure that the pitch was appropriate to the children. Then she said, "Do you have everything off your desk? Who are the helpers to pass the graded papers back?" The helpers responded, following which the apprentice admonished them to "keep your feet in front so

> that they can get down the aisle to pass your papers back to you." Following this the pupils filed out to take a morning break on the playground. I was able to have a brief talk with the apprentice following the lesson. In the course of our discussion she said that discipline and control of the pupils was very important. She said that this was true if you were going to complete the lesson that you had planned. She went on to suggest that the cooperating teacher had taken the initiative in asking her to make a bulletin board. In this instance it was the health train. The students could bring in pictures from magazines and various places and as they brought them in they would place these pictures of foods on the coaches of the train which was above the blackboard on the right side of the room. In addition she was making up a science exhibit beginning with seeds of various kinds of plants and she noted that the cooperating teacher had "pushed me into doing things." (9/14)

Multiple learnings: a summary

Occasionally and unwittingly the observer notes a series of events that summarize in a novel fashion the complexity of the fabric of life in the setting under investigation. The notes from a September observation have that quality.

> I've just been at the Johnson School watching Miss Frank teach a penmanship lesson, a number lesson, and begin a reading lesson.
>
> She has a group of the brightest of the first-grade kids. It is supposedly the able group out of four. As I watched the lesson I was struck by the fact that the kids seemed to know most of the things that she was presenting to them. The cooperating teacher commented that Miss Frank had problems in control and also had made a mistake with the letter j. She was surprised that the kids, and she mentioned a boy named Emmett, who was quite active and seems quite able, that they didn't raise a criticism and point out the mistake. For some reason I am struck by the emphasis on the "right way" in doing things. While this has some obviously desirable aspects in terms of people basically printing in a manner that is legible to everyone and fits the common pattern of the culture, it also accents the homogeneity and the uniformity rather than the individuality. The consequences of building this in over a period of years seems most important.
>
> The cooperating teacher thinks that the control problem centering around the apprentice insisting upon things being done her way is the major issue in the apprenticeship. As she sees it

> most of them don't do this. From my observation, if Miss Frank is not that way yet, she is well on the way to becoming that way. (9/27)

The apprentice has direct contact with a broad program of ability grouping. Knowingly or not she was experiencing the problem of difficulty level of materials--a complex concept derived from the structure of the materials and the ability of the children. In the eyes of the cooperating teacher the problem of "control" appeared as a deficit in Miss Frank's teaching skills, and the solution lay in the apprentice insisting on things being done her way.[5] The black and white, right vs. wrong, quality of the letter "J" is not the place to make the argument, the elementary school does not seem to be the place where creative or imaginative activities which have multiple "right" outcomes occur. In contra-distinction, the cooperating teacher has built a classroom culture in which criticism is not only tolerated but expected. Emmett was expected to speak out regarding the truth. The apprentice, cne might speculate, in such an environment leads an apprenhensive life of possible attack, i.e., "being shot down." In short, a brief account of lessons in penmanship, numbers and reading, indicates that the latent dimensions which we have been stressing of the two-by-two program are very great.

Broader Aspects of Strategy and Performance

Criteria for selecting curricular materials

Teachers vary in their criteria for selecting particular curricular materials and experiences. In our own experience two decidedly different alternatives can be construed--the materials are seen as "being fun or interesting" versus the materials are "necessary" or "good for the children" with the corollary of they have to participate in it. Our hypothesizing suggests that these orientations produce very different kinds of classroom consequences and that they have differential antecedents. Instances of apprentices taking part in such episodes cued our model building.

> 11:20 Mr.Jennings begins a literature lesson. Lists six words on board: cave, lagoon, reef, dorsal, desperation, fathoms.
>
> (OBS.: Atmosphere strikingly different here. Mr.Jennings calls it "more liberal." The cooperating teacher is well organized, monitors for chores, and she directs up front.

---

[5] The observer's guess that Miss Frank was "on the way" was an erroneous prediction. The program did not culminate in Miss Frank's solving the problem.

Good sense of humor. No nagging after the kids.)

The kids are not real able--they're stuck on cove and lagoon. Mr. Jennings has them look these words up.

(OBS.: The cooperating teacher stays out of his lesson. In contrast to Miss Frank's complaints earlier this morning that her cooperating teacher kept interrupting.)

Mr. Jennings somewhat timid. Asks kids to read louder. Presents illustration from Forest Park--lagoons. Varies word pronunciation, word meaning from dictionary, kids meanings, his meaning, etc.

11:25 Kids have dictionary problems--"dissipation" and difficulty in reading dictionary. At this point the cooperating teacher does break in. "He's not reading it right." Mr. Jennings has trouble with fathoms--"fantoms." He's commented earlier about the difficulty of the vocabulary. Raises the ability question and necessary limits for mid and upper elementary grades.

11:30 Mr. Jennings reads introduction "The Shark," Armstrong Sperry. Draws map down and asks one child to find "south seas." Asks questions to bring out setting. Assigns silent reading, pp. 152-top of 155. (Book: Enchanted Isles, Merrill Co.)

11:35 Kids are very quiet as they read. Mr. Jennings walks about checking occasionally with individual children.

(OBS.: Earlier he had commented, to my question, that Thursday had gone very well. The Principal and District Supervisor had been in early when they were "quiet" and he had been commended by the Principal. The kids seemed to go along with the lessons he had prepared.)

11:40 Mr. Jennings begins raising questions about the skeleton. A few of kids seem to have trouble with main idea--skeleton and weapons. Several don't know which bone will be made into an axe. The kids are quite animated and excited over the story. Mr. Jennings had selected it because "it was interesting" and "not as hard" as some others. The cooperating teacher had echoed that they didn't have time for all of them so pick as you want. This is much more of a positive alternative than typically found in other situations.

(OBS.: The overall strategy of"it's fun and interesting" vs "you have to"seems to pervade this setting. Genesis? Consequences?)

Mr. Jennings quizzes on remainder, and then has them read the last paragraph. Volunteers in sequence. The kids have enough difficulty that many must miss the content--e.g., shark, wound, stabbed.

11:56 Asks kids if they liked it. "Yes" is chorused. Monitors collect books. (10/7)

Insert Figure 4.13 about here

Teaching at a moment's notice: the impromptu performance

One of the most difficult elements to learn in any skill is that of the impromptu performance. When one is called upon at the spur of the moment one must marshall his resources, estimate the situation, and begin the assigned task. The "2 x 2" program demanded such behavior on occasion.

> Today they have parent conferences. He's got 70. Commented about slowness of kids and high grades last year and problems about justifying to parents the low grades.
>
> Department organized. He has slow reading group at this time. Confusion as kids move in.
>
> Miss Lawrence must teach "greek roots" at two minutes notice. Kids hoping not to have speed test. They groan at roots. Miss Lawrence frowns pleasantly and starts in. "What are some roots you've had." Off she goes. Pulls democracy and breaks into two parts demo-cracy. Goes on to: auto-cracy, bio-graphy, bio-logy.
>
> 1:15 The cooperating teacher in quizzing a new kid. Miss Lawrence works on "logy"--science of or study of. Kid tries on study of animals and plants. Miss Lawrence: "What do we call that?" Pulls life from another. She raises other illustrations: zoo-logy, chrono-logy. Asks for another. One boy says: sophy. And they tie down to wisdom.
>
> 1:20 One of children starts to raise trouble--she moves in quickly--"turn around." Raises threat of writing. They respond "no" and she moves on. Raises "thermometer." The tele--far, etc., then television as far vision. Asks for others. "Maybe we can work out."

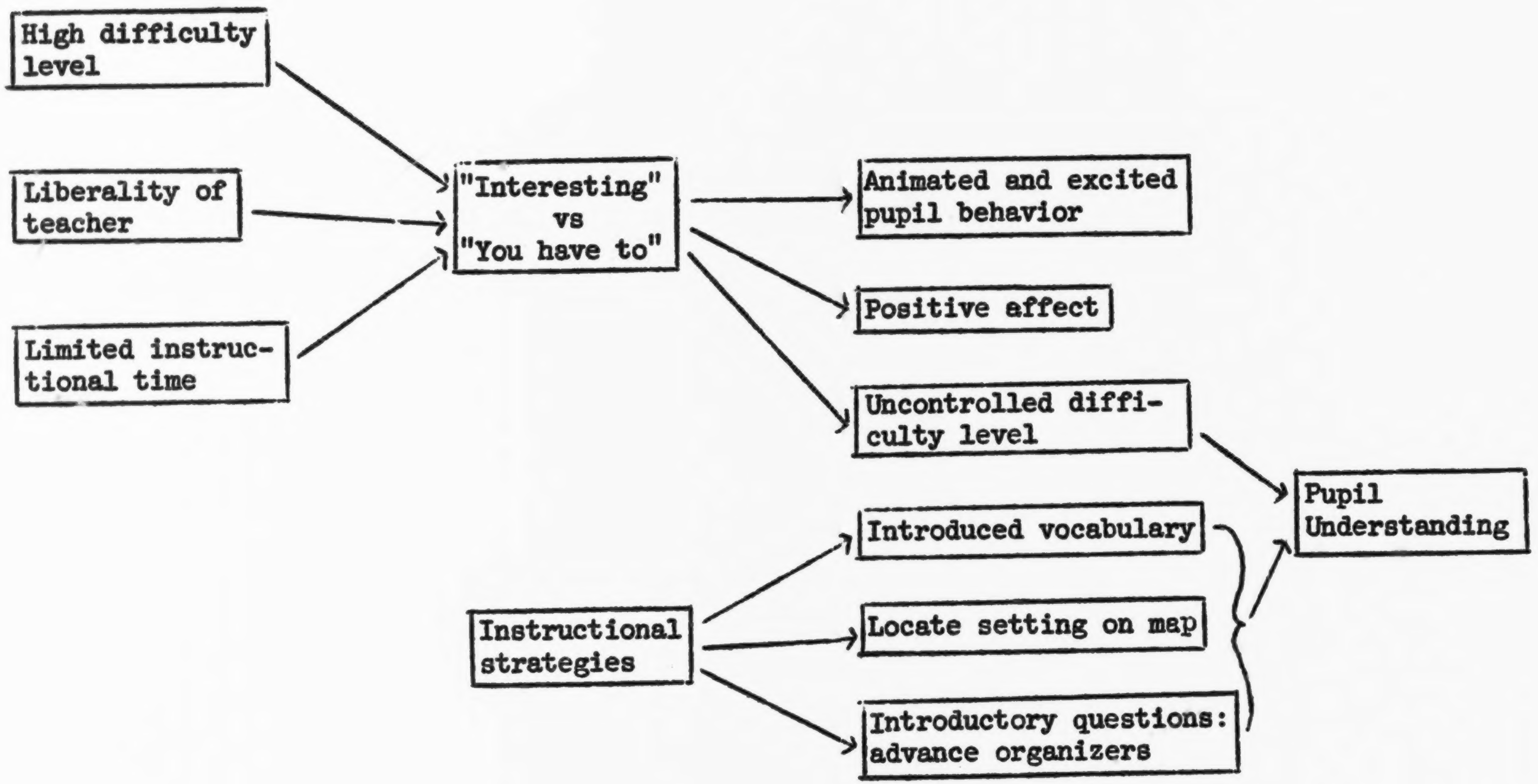
High difficulty level
Liberality of teacher
Limited instructional time
"Interesting" vs "You have to"
Animated and excited pupil behavior
Positive affect
Uncontrolled difficulty level
Instructional strategies
Introduced vocabulary
Locate setting on map
Introductory questions: advance organizers
Pupil Understanding

Figure 4.13 Aspects of natural selection

> Kid suggests "scope" and she asks for meaning. They say view and she continues on into micro and tele--
>
> (OBS.: Today has some problems, initial confusion. Noise in hall. Kids scattered. Miss Lawrence in a hurry, etc. Also she has much less understanding of who they are and what they are supposed to do. The two-by-two in department set up with the missed days of last week and this week is quite chaotic. For a gal who is usually with it, Miss Lawrence doesn't know.)
>
> As she asks the kids what they have to do, she gets the usual too many answers and too many variations.
>
> (OBS: She might have done better to say study hall.)
>
> Part of kids go out later for language arts and part to arithmetic. She has them get out materials. Issues variety of direct comments--get out work, only one at pencil sharpener, etc. As they start she shifts gears and begins to talk with individuals, e.g., "Did you get set up at lunch time?" (11/11)

Later, a fuller appreciation of the apprentice's view of such an impromptu experience and other variables in the situation is caught in the summary notes.

> I just finished visiting with Miss Lawrence for a brief period of time. She was teaching a lesson that she had not been informed that she had to teach and was trying to discuss roots of words. All of this left her considerably more frustrated and flustered than she usually is. The school seemed generally more chaotic around the room that she was in, and they were having parent interviews and the regular teacher was quite busy with a raft of conferences.
>
> Miss Lawrence also commented about the difficulty of trying to teach the lesson without some kind of materials or program. She commented that there were only a half-dozen words listed on the sheet with which she could work. A few moments of reflection or some time to prepare might well have given her many more options that she could use. Similarly some kind of facility in doing some of it by discussion and some of it by written work and having the kids look up other kinds of words, etc., might well have made the lesson move more appropriately to the goal and structure it enough to keep down some of the outside and nonsense-type behavior.

> Linked in this it seems to me is a most important principle of what do you do when the kids are essentially interacting in ways that you don't want and you try to move them into a situation, a discussion which involves considerable interaction. I would be curious as to the need to move at that point to more individualized activities where the interaction is with the materials, by oneself, rather than with others, and if that steadies the situation then move toward some attempts to begin interaction when you've not started on the wrong foot.
>
> As I commented in the notes also, she had the kids scattered all over the room in a very disorganized way, with long rows of some full, and others partially full, and this gave a kind of a ragged appearance to the operation. It seemed to me that there was no "feel of unity" in the situation. To hear or see anyone else who was speaking required that one twist and turn in a variety of different directions. (11/11)

SPECIAL ISSUES IN LEARNING TO TEACH THE CULTURALLY DISADVANTAGED

Urban education today lies heavily in the subcategory of teaching the deprived and disadvantaged. At one level, our narrative of the apprentices is the epic of a school system socializing newcomers to the day-to-day problems and possibilities in working with the urban poor who are now a majority of Negroes. Part of our continuing interest is describing life in the slum school and developing concepts and testing hypotheses concerning such teaching. Although much of our report might be categorized within this area, our specific concerns lie in the problems of stimulating intellectual development of the children, and lie in the manifest elements of City Teachers College to insure each apprentice experience in working with lower class as well as middle class children.

Piercing the "gauze curtain"

While such studies as the "Coleman Report" (Coleman et al., 1966) document the crisis in Negro education, they present little of the day-to-day flavor of the struggles to rectify the unfavorable characteristics of the Ghetto Schools and to bring able Negro and white teachers into significant relationships with the children.[6] We have excerpted notes of such an hour in Miss Lawrence's apprenticeship, and we have entitled it "piercing the gauze curtain." The attempts to break through the limitations of attention and awareness seem significant, the success limited, the frustration great, and the magnitude of the problem large. In our episode the facts of life of the children--overage, restless, nervous symptoms (orality) and the blankness of perception-- arise vividly. The dimensions of apprenticing--organizational demands, relationships with cooperating personnel, and so forth--are exhibited. Most critical, however, are the resourceful attempts of a talented neophyte teacher to deal with these realities.

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[6] See Nat Hentoff, Our Children Are Dying.

1:00 Approximately 25 kids. A and B levels. Miss Lawrence reports many of them considerably overage. Some are 9 year olds in what amounts to beginning first grade.

Miss Lawrence takes attendance as the kids engage in seat work--printing, coloring on a ditto, work books, etc.; keeps up a steady verbal commentary indicating where they should be, and what they should be doing. Kids seem quite squirmy, talkative, etc. Miss Lawrence finally goes over to settle a lost or stolen "brown crayon" problem. She pushes for information regarding what they are doing, where are their crayons, etc. Finally resolves the dilemma. She pushes through to firm conclusion.

Then she circulates about as the kids need help. Finally back to desk to finish clerical chores.

1:12 The cooperating teacher is in. Checks on variety of details. She's very pleasant to me--do I want her in or out, etc. Very quietly, she's on top of the kids and the room. She moves about easily and carefully.

1:14 Miss Lawrence goes over to begin numbers lesson with group on the right.

(OBS.: Miss Lawrence had told me of conflict over amount of teaching she's been doing, e.g., today she had nine lessons to plan and prepare for. Principal has said she is good and can go ahead with minimal observing. This is in keeping with their policy of pushing as hard and fast as possible. Supervisor in to raise cain over it.)

Miss Lawrence has numerals 1 - 9 on board and has brought in some tongue depressors. Asks the child to name the numeral, to which she points, and then make a set of "8" if that's the numeral. The 13 kids are very eager to volunteer and to have a chance to count out a set. She keeps telling the kids, in a variety of ways, to pay attention.

1:20 Now she has some large cards which the kids must arrange in order and count. She has several count them. Now she's back to making sets like the numerals on the card. She reminds Peggy that Anthony is doing it.

(OBS.: As I watch and hear Miss Lawrence being much more directive, the feeling I get is that she could become pretty fierce if she got a grump who wouldn't respond to her. It's as if she knows she's good and they ought to realize it too.)

1:25 She has Shirley collect number cards. Brings out a ditto. Has Jessica pass out sheets. All kids take out their crayons. She has them put names at the top. Has a child count circles. There are nine. Tells them to write a "1" in first line. Color one. Shows them how. Takes up "2." Permits them to use any color they want.

1:30 Radio pops on. Attention swings to radio. Kids all sit on floor as though the microphone is a person. Miss Lawrence collects her "badges" and pins and sits up front.

In the class also I notice a good bit of thumb and finger sucking, etc.

The program tells about policemen: uniforms, safety, traffic direction, etc. Recording has an adult, Mr. Vincent the policeman, and several children. While this goes on Miss Lawrence pins her "badges" on the kids. The cooperating teacher helps her also.

As I watch, it seems as though the kids are not attending to the radio.

(OBS.: They have kind of a glassy look about them. It's almost as though they see and react to the world through a gauze curtain. The contrast between the aliveness and vivacity of these two teachers who are so alert and responsive and the kids is most marked. It's almost as though one needs to put them in the proverbial Skinner box and control the total milieu.)

Kids aren't responsive to the song, "The policeman is our helper and our friend." Even when they are supposed to sing the kids can't quite participate or partake.

1:43 "Boys and girls, these are badges and you're going to be my deputies."

One boy cries because he doesn't have a badge. At this the cooperating teacher gets upset--partly because I'm here--"Mr. Smith will see you crying," etc. Later she tells me, "He's always crying." Difficult for the kids to follow procedures in taking turns wanting to be called on, etc.

1:50 Miss Lawrence sends them back to seat. They return for seat work and wait for recess.

Some mix-up on times. It turns out that there's 20 minutes so Miss Lawrence decides to go ahead with another arithmetic lesson. The cooperating teacher moves about supervising the seat work.

1:55 Miss Lawrence begins with, "Set of one" and one stick in the center. She has them name and then count sets of 1, 2, 3, and 4. With cards she plays a guessing game. Then has one child put them into order. Has another child, Wilbur, try it. He has all kinds of trouble before he gets 1 - 4 in order.

Very difficult to give everyone a chance. Those who are last get real "hurt expressions" on their faces.

2:00 The radio booms on re "carbohydrates" which they aren't supposed to listen to. The cooperating teacher sends a boy to office to get it turned off. Shortly it's off.

Miss Lawrence takes the kids to the board. She's having a terrible time getting and holding their attention. It's like a hungry animal exploring about and she isn't the goal box with food. Consequently they move on by her as they would any other object.

(OBS.: Raises the question of how a teacher becomes a significant part of the environment. Can see how many teachers move to be significant negatively as better than no significance at all. The patience required is endless.)

2:07 Kids back at seats. Desks cleared.

Substantive teaching with the culturally deprived

When one moves beyond the 3 R's and literacy goals for pupils in slum neighborhoods considerable disagreement exists regarding appropriate curriculum and instruction. We had been concerned in other contexts (Smith & Geoffrey, 1965, 1968). Miss Charles, working with a group of fifth graders in one of the most disadvantaged Negro ghettos in Big City, was learning the complexities of teaching science to the children. After a brief "testing the limits" bout, which we described elsewhere (the peppermint stick episode), she begins a science lesson.

> 1:15 "Everything off your desk but science book." Picks up the lesson from the other day. Definition of current. Asks re equipment from experiment. Hot and cold water container, ink to color the water, etc.
>
> (OBS.: She'd described lesson to me and said it flopped totally, even though very good on paper.)
>
> Reviews warm and cold water: warm to top and cold to bottom.
>
> 1:18 Let's look at p. 12 in science book. "No, I'm wrong, p. 10."
>
> Has child read #3, What causes current to flow? She pulls hot and cold from one. Asks what review means. They know. Go on in reading about the experiment. Kids handled reading fairly well.
>
> Miss Charles expands to world map. Where will warm water be. Class attentive and one responds appropriately. She continues with map in book, p. 14 and map on wall.
>
> (OBS.: Some confusion on up and down on map and up and down in jar.)
>
> Uses questions on board to pin down ideas, e.g., prevailing.
>
> 1:27 Begins reading p. 12, "Rivers of Air", e.g., air setting water currents. Has a girl come up and blow on the water of the aquarium. Picks back up on text. The 25 kids are very attentive as they work along.
>
> Miss Charles comments, "Can't do experiment but they read it and talk about it." Goes back to the map and brings water and air together as well as map and experiments.
>
> (OBS.: The lesson might be better with more extended knowledge on Miss Charles' part.)
>
> Illustration with Columbus' voyage and how he might go.
>
> 1:35 Continues reading. They quit before the final paragraph and the commentary on "the doldrums." Apparently time

pressure gets in the way. She wants them to try again the questions from yesterday.

(OBS.: Perhaps the most exciting aspect of this to me is the solving of the attention problem by accenting interesting content and experience in science. This is true in as "deprived an area" as the Washington School. School. Provides a real alternative to the constant drill on 3 R's. This kind of "modern progressive," to use one of our old stereotypes of styles, fits very neatly. One must note that this is a review lesson and that one might have to take twice as long.)

Miss Charles moves about, helping, checking, etc.

(OBS.: Another aspect of the teacher training program should be a file of ETV tapes. Today's lesson would be a beautiful blend of the ever-present discipline, the manner of moving them through a lesson, etc. If tapes were taken of apprentices you could avoid the rationalizations, "Oh, she's an experienced teacher" and analyze what she must have been thinking and later supply her actual thoughts.)

1:47 She calls for volunteers to fill in blanks. One girl (the peppermint kid) who has gotten permission for a drink, lingers on the way and Miss Charles with big smile and wave of the hand says, "You're on your way." The girl laughs, so do the others, and several are chosen.

(OBS.: She's doing a marvelous job.)

She continues to move around and help various individuals. Some of the wiggly boys and girls move about. The lesson is running long as they exchange papers and begin the board work.

(OBS.: She seems to enjoy the kids and their problems. She doesn't take their antics personally. Keeps working on them and their problems. Always time for humor.)

1:55 Miss Charles finally introduces "rises" as a synonym for "flows up."

Kids return from reading. She keeps lesson moving. Has them sit in other seats if their seat is taken.

This could be a real rough group. Many kids full of mischief, fun, and trials. Miss Charles shows no fluster whatsoever. She walks like the captain on the bridge of

> a ship in the rolling sea.
>
> 1:58 Book monitors collect books. (10/28)

As the observer left the school he made several more evaluative summary remarks.

> It's now 2:15 and I'm on my way back to the University from Miss Charles' school.
>
> Miss Charles gave an amazing performance today. From the field notes and these summary notes some working toward a conception of the ideal teaching procedures seems possible from these specifics.
>
> Perhaps the most exciting part to me was the way in which she handled the problems of substantive learning with a group of culturally deprived children. Today's lesson was a review lesson but it contained elements of concretemess, of experimenting, of text materials, of ideas, and of facts. She wove these together as she tried to get the kids to think about the problems of water currents, air currents, hot air, cold air, hot water, and cold water. She blended the materials from the pictures in the text, the map on the board, and questions that she had written on the board and she asked in a very easy style.
>
> The class was attentive and interested and with her all the way. In this one instance it seems to me it blows a very clear hole in the rationalization that you can't teach with the modern traditional point of view, there are no special aspects of this class that would make it easy and I would guess quite to the contrary there are aspects of it that would make it difficult. The notes today are full of the particulars of kids who were trying to test her while she was on her own. These testings kept coming up and she kept handling them with a professional flavor and competence that was breathtaking to watch. (10/28)

The most salient issues underlying her work seem to be 1) lessons "flop" and must be retaught; 2) the latent issues of limited time and most efficacious ways of spending that time; 3) the "modern progressive" position (textbook plus outside materials) which is midway between "sterile tradition" emphasizing the 3 R's and drill and the "way out innovative" which abandons total group procedures and texts in favor of completely individualized content and sequence of instruction; 4) the demands on teacher knowledge; 5) the complex demands of teacher confidence, skill in repartee, and composure; 6) the consequences in interest and attention with the children. For the learning outcome we had no measures.

To extend our analysis to another area--literature--we present a poetry lesson of Miss Charles'.

1:10 Miss Charles' class is slow beginning because room is used for noon films for primary grades. It seems as though the projectionists are mothers in the community. Putting wraps away, patrol boys in, etc., all takes a good bit of time.

I've a chance to talk with the cooperating teacher before class. She has a quiet dignity about her. She's courteous and helpful. She doesn't say much about the group--find out for myself.

Miss Charles begins by passing out a ditto. Asks for title, one boy said Rudyard Kipling. Another corrects to "If." Asks if there's anything they know re Kipling. One says "Just So Stories." She has a boy get the K encyclopedia. Asks what "Just So Stories" are about. Pulls animals, humor, etc. She comments that he was born in India. Aristocratic parents, to England after six. She walks about giving latecomers sheets, comments humorously--"If Willie ever gets encyclopedia" to his fumbling in cabinet.

Cooperating teacher butts in a bit.

After the reading, she picks up information. Born in Bombay, 12/30/. . .Explains his education between six and when he went back. Hindu tradition. Speaks of "If" being a favorite of her's. Written for his son. Has child read introduction. She reads poem with considerable expression in view of her own former speech problem. Kids attentive.

"Can you see what father telling son? Augusta?" "Fools and not be a fool" etc.

Debra.

Become a man.

Miss Charles accents "kind of man."

Then, "Brooks, do you have something to add?"

Discouragement.

Yes. He's outlining some of things son will face. Asks if they want to recite. They say yes and follow through.

Reads first stanza. They're with her. She corrects a typing error. Asks for meaning. They pick up. 3rd comment re "dreaming." She asks them to pursue, e.g., like at night? Pulls "day dreams." Extends with imagination. Girl named Augusta has been caught well.

1:33 Has boys read next stanza. Seeks meaning of "imposters. . .triumph and disaster." Gets several answers and she "stews over it", pulls another, then "Yes I think so." Girls read. "Do you think it's hard to risk?. . .What else." Asks boys what pitch and toss mean. Pulls laughter. She prompts, "Might have opportunity to be with someone great." Pulls not forget common people. Continues with variety of questions, comments, and what they think.

Attention quite good except for 2 or 3 boys on fringe. One reads a pocket book on his lap.

To the girls--only apply to boys. Pulls several answers. One boy comments--"Don't see girls playing dice." Everyone laughs. Miss Charles reiterates the "figurative" aspect of the language.

Passes out paper for the kids to find those virtues most relevant to girls and those to boys.

(OBS.: Only here does she become a bit sentimental and indicates how much the poem has meant to her.)

The cooperating teacher moves about now. She'd been sitting quietly at the desk until now. She shuffles about, seems elderly, in her 60's (?). Wears a very soft, slipper-type, shoe. Quietly she moves among the deviant boys.

1:50 My watch seems to be gaining time. It's 1:40 on school clock. Breaks in to clarify assignment. Calls on one boy who responds slowly, she apologizes, backs off, and listens and tries to generate one word responses and does with next two. She is really "with it"--i.e., perceives what the kids are thinking and feeling and zeroes in on it. Some near banter re virtues belonging to boys or girls and "The girls think you're being selfish."

Once she has the kids working on the brief responses, she chats with the cooperating teacher. They talk together quietly. Miss Charles soon moves out among them.

Insert Figure 4.14 about here

IF

Rudyard Kipling

The idea of this poem is that success comes from self-control and a true sense of the value of things. In extremes lies dangers. One must use victory and disappcintment wisely and push on toward his goal. For his personal reward he will gain the full stature of manhood.

If you can keep your head when all about you
   Are losing theirs and blaming it on you;
If you can trust yourself when all men doubt you,
   And make allowances for their doubting too;
If you can wait and not be tired by waiting,
   Or being lied about don't deal in lies,
Or being hated don't give way to hating,
   And yet don't look too good nor talk too wise,

If you can dream--and not make dreams your master;
   If you can think--and not make thoughts your aim;
If you can meet with Triumph and Disaster
   And treat these two imposters just the same;
If you can bear to hear the truth you've spoken
   Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
   And stoop and build them up with worn-out tools;

If you can make one heap of all your winnings
   And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
   And never breathe a word about your loss;
If you can force your heart and nerve and sinew
   To serve your turn long after they are gone,
And so hold on when there is nothing in you
   Except the Will which says to them: "Hold on!"

If you can talk with crowds and keep your virtue,
   Or walk with kings--nor lose the common touch,
If neither foe nor loving friends can hurt you,
   If all men count with you, but none too much;
If you can fill the unforgiving minute
   With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it,
   And--what is more--you'll be a Man, my son!

Figure 4.14   "If" by Rudyard Kipling.

The post-lesson summary observations suggest a further point or two:

It's now 2:10 and I've just been sitting in on a poetry lesson with Miss Charles.

The lesson went beautifully, I thought. Miss Charles, in the few minutes I had to talk with her afterwards, was not as elated as I was. As we talked about the lesson and the kind of planning that she had done for it, a number of things occurred on the spur of the moment. One of these was the aspect of having the boys read one verse and the girls read another verse. I asked her about this and she said that she recalled this from earlier work that she'd had in expression in dramatics.

This raises a very important point about getting a clear assessment of the range and kinds of experiences that the apprentices have experienced in their day-to-day existence prior to coming into the teacher training program. As she said, she's been dying to teach some poetry and this kind of thing. Apparently she's had some very extended and meaningful experiences of this kind of her own. None of it was connected with the formal elementary school or high school experience she's had. Most of it came from some kind of private work where her sister was involved in expression and dramatics and she got involved in the expression courses because she stuttered.

She illustrated the general principle of "continuity" which is coming out in the study with Geoffrey. She played beautifully the pitch and toss, dice playing, and references to figurative language and its usage from the previous day and was preparing to build it into figurative language in some work tomorrow.

Also, it seemed to me that except at one critical point when she got a bit sentimental over the poem, she had an extreme degree of "with-it-ness." She's got a real feel for the kids, what they're thinking and what they're doing. She also exudes all kinds of cues that she knows what she's about, that she's got plenty of time to get there, and that they will get there. In a sense she's never vulnerable and the kids can never really take advantage of her. In effect, she knows what the game is about, what the rules are, how to play it, and she plays it well, and they in turn know what the rules are, and know what the game is, how to play it, and seem to move along with her. (11/9)

Another aspect of Miss Charles' teaching is her ability to use humor throughout the course of a lesson. The major examples here centered on her own comment while she was

> waiting for Willie to get the encyclopedia and the reference to if he ever gets it. The other illustration centered on her ability to utilize and handle the pitch and toss comment that one of the children made. Correlated with this is the inability to get flustered in any situation. The flusterability concept, if one can speak of such a dimension, seems to run through a good bit of Miss Frank's behavior and some of Mr. Jennings' but very little of the behavior of Miss Lawrence or Miss Charles. This was especially true of Miss Charles today. (11/9)

SUMMARY

In his usual provocative style, Lortie (1966) develops the "Robinson Crusoe model" of teacher socialization. For us, his most important conception is that of "core skills" in teaching.[7,8] Our discussion in this chapter has been mainly an attempt to specify these "core interpersonal capacities" in greater detail. We feel this is the most important problem in the contemporary analysis of teaching. As the latent dimensions of apprenticeships are made known and as the necessary skills of the occupation are made known, rationality can enter into the discussions. This bias relates to a further observation of Lortie's whose conviction we share:

> . . .teachers possess very little in the way of a set of shared terms or concepts about the subtleties of teaching as an interpersonal transaction. (p. 38)

When we have arrived at the twin products of concepts (the underlying categories and dimensions) and their labels, we will have begun to have a psychology of teaching worthy of its name. At that point, we can attack further such issues as one that Lortie suggests, i.e., the learning occurs through informal sources rather than formal ones, with which our data seems to disagree, and the more general and fundamental issues of teacher effectiveness and merit rating. Further, the statement of objectives in teacher training will be clearer and the problems of in-service training and supervision will have a focus. This chapter, in short, summarizes some of the kinds of core skills the apprentices were developing.

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7. He speaks also of these as "core competencies," "core interpersonal capacities."

8. The reader will note that our data, gathered with apprentices in situ varies from his gathered in interview and questionnaire after a number of years experience. The teachers may have forgotten the impact of their apprenticeship or it may have been less potent than the "2 x 2."

Chapter Five

The Literature: Views on Teacher Training

Introduction

As our analysis has progressed we have been concerned with the general nature of teaching, with a total training program which develops, at least hypothetically, the teacher into the kind of person to carry out the tasks demanded, and with the special nature of the student teaching or apprenticeship experience which is one part of the total process. In recent years, as on many occasions in the past, these issues are not only in debate among teachers, teacher educators and members of the more general establishment but also within the general public. While many of these discussions are several long steps removed from the description and analysis of our case, the more general debate does provide a context and a set of positions against which we might profitably strike our more concrete illustration. Consequently, while we will be brief, we will outline and comment upon the central thrust of each of the positions.

It has long been recognized in the field of teacher education that the practice teaching or clinical aspect is crucial. In fact, historically, the methods of teaching, observation and demonstration, and practice in teaching have been the most dominant elements of preparing for teaching. As the common school began to grow at a rapid pace the need for teachers became most pressing and not infrequently the early Academies and Colleges of the eighteenth century instituted courses in pedagogy and gained the cooperation of selected schools for observation and practice teaching. Later, in the period between 1830 and 1850, special purpose schools were established to meet the increasing demand for teachers. These normal schools, developed first in New England, had model schools associated with them so that the students could observe demonstration lessons and practice teach under the watchful eye of the principal of the Normal school. Following the lesson the principal would talk with the student teacher about the lessons he had observed. As the Normal school idea spread over the country the training periods were extended from one to two to three years until by the 1930's virtually all of the normal schools had converted to four year Teachers Colleges. In the 1960's the process is well underway of altering the complexion of the Teachers Colleges in the direction of the multipurpose university. Throughout this time, however, a central feature in the education of teachers has remained, namely, courses in methods of teaching and practice in teaching.

The practice in teaching has occurred under a number of formats--known variously as practice teaching, apprentice teaching and the internship. The last of these patterns is comparatively recent in origin, although with some attempts as early as 1895, 1904 and 1919. However, it is in the 1930's that most of the internship programs were developed (Shaplin & Powell, 1964). Basically the internship is defined as follows:

"The internship is an advanced level of student teaching in which the intern teaches a major portion,or all of the day, is a college graduate, is paid by the school district, and is supervised by college personnel." (p. 175.) In all instances, however, the emphasis appears to be on "practice" in "realistic" situations with increasing responsibility (under the internship) being given to the student for the conduct of teaching. The nature of the format or organizational pattern for "practice in teaching" does not necessarily tell us what is,or ought to be,the major focus of the experience. However, it may be implicit in the internship that it more nearly approximates the normal hazards and problems that are to be experienced in the real school while other patterns of practice teaching are a compromise. Dewey suggests that "in theory they approximate ordinary conditions. As a matter of fact, the 'best interests of the children' are so safeguarded and supervised that the situation approaches learning to swim without going too near the water." In neither case, however, the format does not tell us what is to be learned; what kind of a teacher we wish to develop through time; what outcomes are to be desired concerning continued growth in teaching; what conceptions of teaching behavior and resulting pupil behavior are deemed to be desirable as a consequence of engaging in the "deliberate" education of the young. An answer to these latter queries may help us to give more nearly effective structure to the practice experience; may aid us in defining the kinds of activities we wish practice teachers to engage in; and may aid us in better defining the roles of the multiple persons (and the interrelationship of roles) as they converge in the total educative process for pupils, student teachers, cooperating teachers, and administrators, and college personnel concerned with both the clinical and theoretical aspects of the education of teachers and pupils in the schools.

The Broad General Positions

The educational debates of the 1950's and 1960's often carried commentary on training teachers as one position of the attack or the defense. Usually, the discussions were broad to the point of losing any sharpness or analytical quality the authors might have intended. Briefly, we comment upon several of the most widely known positions.

Conant's Position

In the initial sentence of a short paragraph, Conant phrases the basic assumption underlying our investigation as well as the major question:

> Few if any thoughtful people have denied that the art of teaching can be developed by practice, under suitable conditions. Thus,the Massachusetts Board of Education. . .subscribed to the statement that 'No one can entertain a doubt that there is a mastery in teaching as in every other

> art. Nor is it less obvious that within reasonable limits this skill and this mastery may themselves be made the subject of instruction and be communicated to others.' These words were written in 1838. The question then was: What is this skill and how can one communicate it to others? This question remains the hard core of the issue. (p. 113)

In our investigation we have described the latent as well as manifest meaning of the art as it is defined by City Teachers College and the public schools of Big City, and equally critically we have explored what is meant by "suitable conditions" of practice.

As we indicated in considerable detail, our analysis of the phenomenon of teaching involved an important conceptual distinction between teacher schema and teacher behavior. The former referred to the concepts and ideas about teaching which the teacher had, while the latter referred to the action she carried out. In our analysis we saw these as interdependent; her action should follow upon her plans, strategies, and decisions for her goals to be maximally accomplished. However, just as in a game of tennis, while one may know where he wants the next shot to go, he may not have the skills to hit it there. Presumably one may have the skills of teaching, e.g., the "born teacher" without the conceptual distinctions that go into rational planning. Conant speaks to the schema or conceptual issues and also he states a time preference that this knowledge should precede the skills. In short, he is really advocating two points which we have separated in our analysis.

> At the outset, I think we can identify four components of the intellectual equipment that would be a prerequisite to the development of teaching skill. The first I shall call the 'democratic social component.' The second is an interest in the way behavior develops in groups of children and some experience of this development. A third is a sympathetic knowledge of the growth of children, by which I mean far more than physical growth, of course. A fourth might be called the principles of teaching. This last is almost equally applicable to a teacher with only one pupil (the tutor of a rich family in former times) as to a person attempting to develop an intellectual skill in a group of children. (p. 113)

With no equivocation, Conant states his position on the role of practice teaching in the preparation of a teacher:

> Without passing judgment either on courses in education or on courses in the arts and sciences, I have recommended that there be only one state requirement for future teachers. . . .I would have the competence of a future teacher tested by practice teaching under conditions set by the state and subject to state supervision. (p. 112)

In short, practice teaching is the sine qua non for entry into the profession. In this statement the accent is on the criterion aspects rather than on the training aspects. Later he has more to say on the nature of the experience as training. While our report has many comments to make on his position, we think it instructive to look back on an earlier analysis, that by Charters and Waples (1929). In their introduction, they comment:

> Professional education in the United States has passed through four stages. The first was the apprenticeship stage. Under the best conditions there probably has never been a more effective method of educating a professional practitioner. But conditions were generally not of the best. Sometimes they were very bad indeed. Moreover, quantitatively as well as qualitatively, the apprenticeship method of training fell short of the country's demand. One of the striking social phenomena of the last century has been the increase of specialization. More and more the activities of society have come to represent a collection of expert services. Established professions have become more important. New professions have sprung up. Professional practitioners have increased in number both absolutely and relatively. Consequently it has become necessary to conduct professional education on a different scale and by totally different methods than those which prevailed a century or more ago.
> (p. XIII)

Koerner's Diatribe

On occasion it is fruitful to take notice of harangues and abusive attacks for possible constructive elements contained within the emotional message. Koerner (1963) indexes only a few pages in his analysis of practice teaching. His account tells little of the concrete experiences obtained by the teacher trainees.

> Not surprisingly, the only part of the professional course work that gets a general vote of confidence from the students themselves, and from practically everybody else, is practice teaching--the time students spend, usually in their senior year, actually teaching under supervision in a public or a demonstration school.What is surprising is that the implications of this fact escape the educationist. The students' vote for practice teaching is merely a common-sense vote in favor of coming to grips with the practical, everyday problems of the job, and against the drudgery of dealing with ambiguous and poorly supported theory in Education courses. It suggests, among other things, the possibilities of extended apprenticeships or internships for teachers with very little or no formal work in pedagogy.

> Not that practice teaching is always well done; indeed it is wretchedly done very often. School systems have far too little interest in training student teachers, usually have no organized program for doing so, and devote little time or energy and no funds to the matter. Systems that cooperate with colleges in taking student teachers for a few weeks of practice do so by means of assigning the cadets to specific teachers, who are paid a paltry stipend, or nothing, by the college to oversee the cadets' work and introduce them to the intricacies of actual teaching. If the cadet is lucky enough to draw an accomplished teacher, an interested principal, and a capable college supervisor, the practice teaching will probably be a great success. . .
>
> A final problem of practice teaching is its failure to weed out the incompetent cadets. It is supposed to be a proving ground for neophyte teachers, but it rarely fulfills this obligation. (pp. 94-96)

The implicit acceptance of a single cooperating teacher, the unidentified specifics in the "intricacies of actual teaching," and the possibility of extreme variations in definitions of good teaching do not appear in his account.[1] Nor do we know what a "wretched" program is except that people spend little time and effort on it. He does argue, for an intensive practicum experience. City Teachers College offers, in terms of clock hours in an elementary school, such a program.[2]

The AACTE proposal

Within professional education, La Grone (1964), writing for the AACTE developed an outline of substantive content for the revision of the preservice professional work in teacher education. While he presented key elements in the renaissance of interest in the analysis of instruction, e.g., Woodruff's concept of teaching, Guilford's structure of the intellect, etc., he did not offer an explicit statement of the practicum program. He does comment in his conclusion:

> At some time in the history of teacher education a dichotomy

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[1] Similarly, the multiple influences--economic limitations (e.g., controlled entry), reward systems in colleges and universities, and degrees of professionalism in education (in contrast to medicine and law) are broader issues needing considerable analysis if his total position is to be carefully considered.

[2] We would note, also, briefer practicum experiences earlier in the program.

> between talk about schools and teaching and practice developed. The talk about teaching and schools has for a number of years been incorrectly considered theory. The information about education has a certain value, but an estimate of its value is dependent upon a 'for what' question.
>
> The notion of practice is a far too limited concept for the development of a high level teaching competence. If it was actually possible to assign all prospective teachers to outstanding experienced teachers, the superimposed effect of imitation or mimicking reduces the possibilities for individual professional growth. A further limitation within this dimension is the random nature of the possible experiences. There is a lack of design and control.
>
> The professional component of a program of teacher education for the last twenty-five or thirty years has taken for granted that the teacher education student will put together the talk about education and his teaching. The recent research in teaching and work in theory indicates that this is an extremely difficult task and that an assumption of this magnitude is more likely to be false than true. (pp. 62-63)

In a more general essay "Teaching--craft or intellectual process," La Grone (1965) criticizes four approaches to teacher training: the traditional program culminating in student teaching, Conant's "master apprentice" relationship, the "no professional training" alternative, and the "bits and pieces" of change as a fourth alternative. He would replace the substantive curriculum in professional education with a curriculum which has a new coherence and structure growing out of research and theory in social science and instruction. The laboratory experiences would be integrated through simulation and the new media, e.g., such devices as micro-teaching. In summary, while he acknowledges that student teaching currently is the most vital course on the curriculum, no longer will it be necessarily so.

The More Specific Analytical Positions

Two important analytical positions about the nature of practice in teaching have occurred recently; one of these (Sarason et al., 1962) moves toward making the teacher an applied psychologist and the other (Shaplin 1960) develops a position which carefully interlocks with a series of important professional issues. Both are based upon the authors' wide personal experience in psychology and education. One (the Shaplin article) has been criticized sharply for lack of more rigorously drawn data (Oliver and Shaver, 1961).

The unstudied problem: Sarason et al.

In brief, the Sarason (1962) book has an uneven--perhaps disjointed would be a better word--quality about it. They wander briefly, and superficially through "the current controversy" in education; they present a day in the life of a second grade teacher; they talk about their observational seminar, and then they make some preliminary recommendations about teacher training.

The most novel idea is their observational seminar prior to courses in professional education and to practice teaching. The biggest limitation is their lack of observation of the apprentices' behavior. They rely on post-practice teaching comments made to the seminar.

Sarason *et al*. make an important point, which we think is open to debate:

> This book has been concerned primarily with the implications of the point of view that the teacher, far from being a technician or imparter of knowledge, is an applier of psychological principles in a particular kind of learning situation. (p. 117)

The two option choice we feel is too limited. A third choice, and one we are struggling to make viable, is that the teacher is a theorist and practitioner of teaching. He is not a decorticate performer nor is he a psychologist. As B. O. Smith has indicated, teaching can be approached from a logical as well as a psychological position. However, until there is a theory of teaching worthy of the name, chaos will reign in the land of teaching and various disciplines--such as psychology (of which one of us is a part)--will attempt to preempt the area and shape it to its own needs and professional perspectives.

Some of the most interesting aspects of the Sarason report are the excerpts (pp. 110-114) from conferences with students about their practice teaching; they read like Gilbert and Sullivan lyrics. The gist seems to be that the apprentices 1) do little teaching, 2) have peripheral relationships with a cooperating teacher who had little supervisory skill, 3) are caught in the school-university split in authority, 4) have almost no contact with their university supervisors, 5) feel lost as to what to do and how to proceed. Our data show that the "2 x 2" program for our apprentices is a very different kind of experience: the manifest procedures are quite clear, there is an abundance of teaching, and relationships with cooperating teachers are brief and varied but frequently intense.

Their major conclusion reads almost like a prospectus for our investigation. We quote at length from a summary recommendation:

> The practice-teaching period, like the internship in many

> other professions, is indispensable for the professional training of the teacher; as was seen in Chapter 2, no responsible critic of teacher training has advocated its elimination. It is surprising, therefore, that the practice-teaching experience has not received systematic study. There has been much discussion, for example, on when it should occur, how long it should be, and the need for it to be a truly stimulating experience. Even on the level of discussion, however, there has been little or no focus on the specific aims of the practice-teaching period, how such aims determine the nature of the student teacher-master teacher relationship, selection and training of the master teacher, and the crucial need for systematic study of what actually goes (or should go) on during this important phase of training.
>
> In closing this chapter we would express the opinion that no problem area in education is as unstudied and as important as the practice-teaching period. What are desperately needed are studies which have as their aims a detailed description of what goes on between neophyte and supervisor, an explication of the principles which presumably underlie the ways in which this learning experience is structured and handled, the values implicit in these principles and their execution, the efficacy of the experiences which do or should precede practice teaching, and the development of procedures that would allow us to evaluate the effects of practice teaching on the neophyte teacher, procedures which would be better than private opinions. (Sarason et al., 1962, p. 116)

Shaplin's Analysis

In 1960, the Fund for the Advancement of Education supported an intensive conference on the critical analysis of teacher education. One of the longest and most intensive of these analyses occurred in Shaplin's discussion of "Practice in Teaching." The major elements in his discussion concerned first, a statement of fundamental assumptions, second, a consideration of varieties or types of practice, and third, a series of suggestions for the organization of practice. One of the major strengths of the statement is that he speaks and states his position clearly and emphatically and permits a forceful and critical exchange of ideas. He has a point of view.

As one reads his seven assumptions one obtains a strong feeling that his approach is highly cognitive and highly abstract and demands high intellectual ability on the part of the students in the program. Later, as we will argue, he seems to accent the intellectual processes in the analysis of teaching as opposed to the skilled properties in the exercise of teaching. His first assumption states "Teaching is behavior, and as behavior is subject to analysis, change, and improvement." He extends this by commenting, "A large part of teaching is the result of a conscious process of controlling behavior to accomplish certain purposes. The assumption is also made here that practice conditions can be established that will provide the kind of analysis of teaching that will enable the teacher to learn to control his behavior." As we have indicated, this seems to accent the rational model, a decision making model or a model of inquiry, rather than a skills model. His second assumption "Much of habitual behavior that individuals have developed in other contexts is inappropriate for the teaching situation." In his later discussion of this point he indicates that people develop roles in clubs, family situations, and in peer groups. He also argues that the practice situation provides "an opportunity to learn the role expectations of teaching with a minimum of trauma, and an opportunity is provided for the analysis of recurrent patterns of behavior." Once again as we read this our view is that he is accenting the cognitive and intellectual aspects of teaching. There seems to be an assumption that the elements in playing the role or carrying out the job are already known to the person and can be executed. The critical learning seems to be on the expectations and the situations in which to apply these. Our data, as we have introduced it, would suggest some difficulties in meeting this assumption.

His third point "Under present conditions, much of teaching is conducted under stress conditions." (p. 82), seems very appropriate to us. The teacher is introduced to an assortment of textbooks, to a full day's teaching, to course outlines, and to a hodge-podge of children or youths. As we look at this point it seems to us to fit the criterion we've developed elsewhere regarding "making teaching livable." Distressful situations seem to rise as the major element in all teacher decisions. It takes precedence over other criteria which might be used in reaching decisions.

Shaplin's fourth assumption "Teaching behavior is complex, involving the full range of thought processes, verbal behavior, and physical action." This point we will develop in more detail under the conception of teaching as role behavior. Once again we would point to Shaplin's analysis as dealing more with the cognition of the phenomenon rather than to the implementation of the phenomenon.

His fifth assumption accents the nature of the isolation of the teaching experience and also integrates neatly into his other writing and conceptions of team teaching and methods of reorganizing instruction. He says, "Teachers, through practice, can learn to analyze, criticize, and control their own teaching behavior. Training and self-analysis (of teaching) should be a primary objective in practice, for most of teaching occurs in isolation from other critical adults." (p. 85) The argument here is that one must acquire skills and self-evaluation to be able to use information that is presented to you from the ongoing situation rather than to expect outside feedback and criticism of what one does.

His sixth assumption, "Practice has the dual purpose of training and the elimination of the unfit." seems to not fit the general character of his analysis to this point.

The seventh assumption states that "practice provides the experience that gives meaning to all other instruction in education (teaching)." (p. 87) The corollaries of this concern the fact that practice should come early in the trainees program and the related notion of what is meant by meaning. Our analysis suggests that "giving meaning" to other phases of education implies the development of concrete perceptual images, the control or power in making the "animal," the pupil, behave or do what you want him to do, and the development of cause-effect relationships which have a potency for one's own power.

In his discussion of varieties or types of practice, Shaplin makes an attempt to organize the specifics into four categories; these are first, practice in the behavioral analysis of teaching, second, practice in the establishment of the preconditions of teaching, third, practice in the organization of instructional content, and fourth, practice in the adaptation of methods and techniques to objectives and content (p. 88).

This first type of practice in the behavioral analysis of teaching and learning, in effect, states that teacher trainees should begin to act like behavioral scientists. The trainee's work in sociology and psychology should enable him to begin to think about the essentials of learning and the application of these essentials to the phenomenon of behavior and interaction of behavior in the classroom. In this regard he is close to the Sarason position. Shaplin makes the cogent point that a "process analysis" of teaching must be developed. While we are prone to agree with this, we have strong concerns that the behavioral scientists working in the field of education have only, in a very limited way, begun to attack this problem. Also in this general behavioral analysis of teaching he argues for the observation of a variety of models of teaching and a concern for different styles of teaching. We would note that the "two-by-two" phenomenon that we have watched permits a high degree of this. It has its own limitations in its brevity, as we have indicated elsewhere. He makes a final point concerning the analysis of the conditions of teaching and here alludes to the differences in schools and in communities and in the settings in which teachers operate. City Teachers College has moved dramatically to this in accenting the fact that all of their apprentices spend half a semester in a middle class school and a half a semester in a lower class school. The degree to which classes and schools are different, and the degree to which our apprentices perform differently in these various settings has been an impressive result of our data.

As the second major element of varieties of practice, Shaplin introduces a term called "the preconditions of teaching." Essentially here he has reference to what is usually called classroom management and deals with an integration of one's personal characteristics, communication skills, and interaction skills, the assessment of baselines of learning in students and finally the strategy and tactics of maintaining order. In this discussion the tenor of the argument seems to shift much more from the analysis of phenomena to the ability of the teacher trainee to carry out certain kinds of skills with the children with whom he's working. The accent blends one's own individual personality with the demands of the situation in terms of reaching some kind of workable equilibrium. The overtones are similar to Lortie's core interpersonal skills (1966). There is no specification of the training regimen to bring about these changes in the apprentice.

Shaplin's last two varieties of practice, "practice in the organization of instruction" and "practice in the adaptation of methods and techniques to objectives and content," seem to collapse into one general heading. The first part, practice in the organization of instruction, essentially is an analysis of the need for teachers to know something about the phenomenon of teaching. Essentially, also, he makes the analysis of the fact that somebody who knows his subject matter alone can't move easily into teaching at the elementary or secondary school. This is made essentially on the grounds that college majors aren't organized with reference to precollegiate levels, that the curriculum resources in the average school used as a training ground are limited, that novice teachers have varying aptitudes and attitudes for the organization of their work and that the recent experience of most liberal arts college graduates is remote from the experience of their younger students. With these factors in mind and with the previous varieties of practice which, as Shaplin says,

> . . .certain basic ways of analyzing and understanding teaching behavior and certain basic preconditions which must be established if teaching is to take place have been discussed. Only as these factors in teaching become almost completely routinized, automatic, and natural, when the teacher is at ease in the teaching situation with the possibilities of adaptability and flexibility implied by these terms, is the energy of the teacher released for the basic tasks of instruction. (p. 95)

The actual process of teaching then becomes a three-fold phenomena, "the setting of objectives and the selection of content," second, the application of methods and techniques appropriate for the objectives, the content, and the characteristics of the student which Shaplin calls "psychologizing of the curriculum," and third, the evaluation of instruction. The intellectual and practical problems of deciding what you want to do, what kind of content is the vehicle, how does it fit the particular group of students that one has and then, finally, to what degree have I accomplished what I set out to do is a very simple way of stating a very complex set of problems. The "2 x 2" with its latent accent on "lessons" and with its high clock hours of "presentations" implemented this aspect to a very high degree.

Shaplin's statement on "suggestions for the organization of practice" involve more generally institutional organizational arrangements for the handling of practice. They include a number of phenomena which are only partially related to our current analysis: for instance, the fact that practice should be continuous and should begin early in the academic study; second,that the schools should take more responsibility in the direct training of teachers; and third the continuing education of teachers is inadequate and must become more functional, and fourth that the practice should provide programs suited to individual talents of novice teachers. The latter point is really a plea for the teacher-educator to become aware of individual differences among his apprentices and practice teachers and the need for some kind of individual diagnosis and specialized and flexible planning for the apprentices. Earlier, we commented on that issue in considerable detail.

We have reported Shaplin's position in detail,for it is perhaps the most extended and carefully considered of the multitude of positions currently available in professional education among its critics and its supporters. Our own criticism and reaction to it arise much more in the context of our data as we presented them in earlier chapters. It is perhaps important to note, however, that on the one hand this position is essentially a conservative position in contrast to the position presented by La Grone who wants to reorganize the whole of teacher education, perhaps to the point of eliminating the student teaching experience as a separate practicum experience and integrating the practicum parts with a new sequence of courses in education. The point of view is articulate and thorough in contrast with the Koerner and Conant points of view which accent a glowing need for the master apprenticeship relationship but which give little specification of just what that relationship might be and just what kinds of things might be learned in that situation.[3] Finally, we would argue that the analysis is only partially relevant to our particular case, and accents the importance of our case, we think, in that there are varying kinds of apprenticeship experiences, at the organizational level, which have both formal and latent dimensions to the program and which have tremendous significance for the kinds of things that apprentices learn.

A Descriptive Account: Iannaccone and Button

The analysis closest to ours is the Iannaccone and Button (1964) report, Functions of student teaching. Their major data source on the process of student teaching were logs kept by the students each day during the apprenticeship; these were supplemented by informal interviews. Direct observation of the student teaching, however, was _not_ a major focus of their data collection. The conceptual framework they utilized consisted of three major positions: 1) Van Gennep's "rites of passage," 2) Arensberg and Chapple's "interaction sets" and 3) Becker _et al_.'s "perspectives."

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[3] We should note also that the position has been subjected to a devastating critique by Oliver and Shaver (1961). They disagree violently with his use of "clinical evidence" instead of more general empirical support and the limits of present day psychological and educational theory for making "sophisticated" analyses.

Rites of passage

As we compare our analysis with their's, the most striking finding is that the process of student teaching is not unitary. As the independent variable, "2 x 2" vs "16 x 1," varies so does the latent experience. They comment:

> The entries of the student teachers' logs suggest they perceived a characteristic pattern of movement _within student teaching_ which they interpreted as evidence of separation and incorporation. (p. 32)

Our lengthy account in Chapters 2, 3 and 4 indicates that our teachers were in the middle of teaching so quickly and so thoroughly that there was little opportunity for reflection of passing stages. One disclaimer we must make, however, is that our data were minimal on prior experiences, especially the pre-apprentice practicum, called student teaching, by City Teachers College. If we had data from prior years a clearer image of the broader transition might have occurred. As it was, during the semester of apprenticing, our subjects were engrossed immediately in the life, the realities, and the complexities of classroom teaching.

Part of the transition, as Iannaccone and Button saw it, involved two separate organizations, the University and the public school.

> In effect, the superordinate at the University. . .says to the beginning student teacher, 'We, the University, are turning you over to another set of superordinates in another social organization which we do not control.' (p. 36)

Our data do not show such transition, for City Teachers College and Big City Public Schools are part of the same totality. The College staff have served in the schools as teachers, principals, and supervisors. As we have indicated, we have a continuous process of socialization into an organization rather than socialization into a profession as Iannaccone and Button describe the process. In a sense, we have a kind of inbreeding which produces a Big City teaching style. Such a style has strengths and weaknesses and could be evaluated from several points of reference and with several criteria in mind.

The organizational structure has important implications for the supervisor's behavior. Iannaccone and Button describe the conditions and two tactics utilized because of the impotence of the University supervisor in another organization, e.g., seldom will they remove an apprentice because of the "ill will" which is created; therefore, they will urge the student teacher to "live with it for the semester" and "make the best of the situation" or second, by making requests to "see the student teacher teach" and thereby move her into the teaching set. They speak also of the local prestige or "high status" of some supervisors who then can trade upon this to create change in the "bad situation." Our earlier description of the City Teachers College program (especially Chapter 2) indicates the closer agreement in the nature of the goals and procedures among the principal actors in the system, the generally accepted format, day by day introduction into teaching, and the common concern for the broader public school system.

Interaction sets

By interaction sets, Iannaccone and Button refer essentially to participants, relationships of superordination and subordination, and activities. Three sets: observer, dyad (apprentice and cooperating teacher) and teaching, constitute the importent ones. The dyadic has a coordinating function; the proportion of time shifts from initial part of student teaching to the latter part. In their data they report some students spending up to six weeks in the observing set (p. 38). Sarah, the girl in question, had had three years of Sunday School teaching experience prior to the student teaching. On the face of it, the issues of neglect of individual differences in background seem critical in a "16 x 1" program as well. The variability of introduction into the teaching set seemed to have determinants other than the apprentice's background and had consequences that rippled through the cohort group--How do I stand in relation to the other student teachers? and Am I becoming a teacher as rapidly as they? We found very little of this. All of our apprentices were too busy teaching (some taught more than they thought they should) to worry about whether they were getting as much experience as their cohorts.

Iannaccone and Button see the desire of their student teachers to move into teaching as a reaction to the dependency of the observer set and related, therefore, to a transition stage between positions of student and teacher. Our apprentices also were eager to teach. To us this seemed to have a positive quality of getting on to what they perceived to be the central reason for their being in the practicum. Secondarily, there was a non-analytical quality about our apprentices. They seemed neither trained nor inclined, at this point in time, to want to learn through observation and reflection. They wanted to see if they could make the teaching work.

Perspectives

"Perspective" is the situationally specific ideas and actions arising to solve specific problems in the lives of medical students (Becker *et al.*, 1961). In their classroom data, Iannaccone and Button use it to define teaching: there is a quantity of work to be done, this necessitates a tightly scheduled day and week, and pupil learning occurs when the sequence is followed. One might diagram it as we have in Figure 5.1.

Insert Figure 5.1 about here

In an interview during her fifth week of student teaching, Alice was asked why she had not written a half page each day as the student teachers had been asked to do. Her reply was revealing: 'I didn't think I could put down what I was thinking.' What she had observed conflicted with what her training had taught her was good teaching, and she was afraid of expressing criticism of her co-operating teacher. Assured by the researcher that what she wrote would remain confidential and would not be held against her, she began to expand her diary. On Monday of the sixth week, she 'began to put down all the horrors or surprises I have felt.' These range from horror at Miss Adam's shaking Jack to make him obey, to indignation at her use of the children's time for housekeeping. 'Miss Adams says that she has the children do this painstaking job (cleaning out paint jars). I was amazed at this, taking out the children's time to do something which she should have done out of school sometime.' By the end of the semester, Alice had learned to have the children clean out the paint jars. She also exclaimed, with the joy of the act of discovery in learning, 'Now I understand,' when she reported that she also 'shook Jack.' It was her first day in the teaching set and Jack had misbehaved. As in the case of many others in our study, the use of physical sanctions came to be viewed as necessary to teach the pupils 'citizenship.' More important, in every instance of a 'horror' listed by Alice, we find, by the end of the semester, a parallel rationalization which not only explains the necessity for the 'horror,' but redefines it as good for the children.

Alice's pattern is characteristic of twenty-four of the twenty-five student teachers studied. With only one exception, the girls came to justify actions that had previously disturbed them as being in conflict with what they had been taught. The logs indicate that this justification occurred for all twenty-four at the time they were given the responsibility for teaching. Now, when faced with a problem such as disruptive behavior on the part of a pupil, they fell back upon a technique they had observed in the first period of student teaching. They even used techniques or patterns of

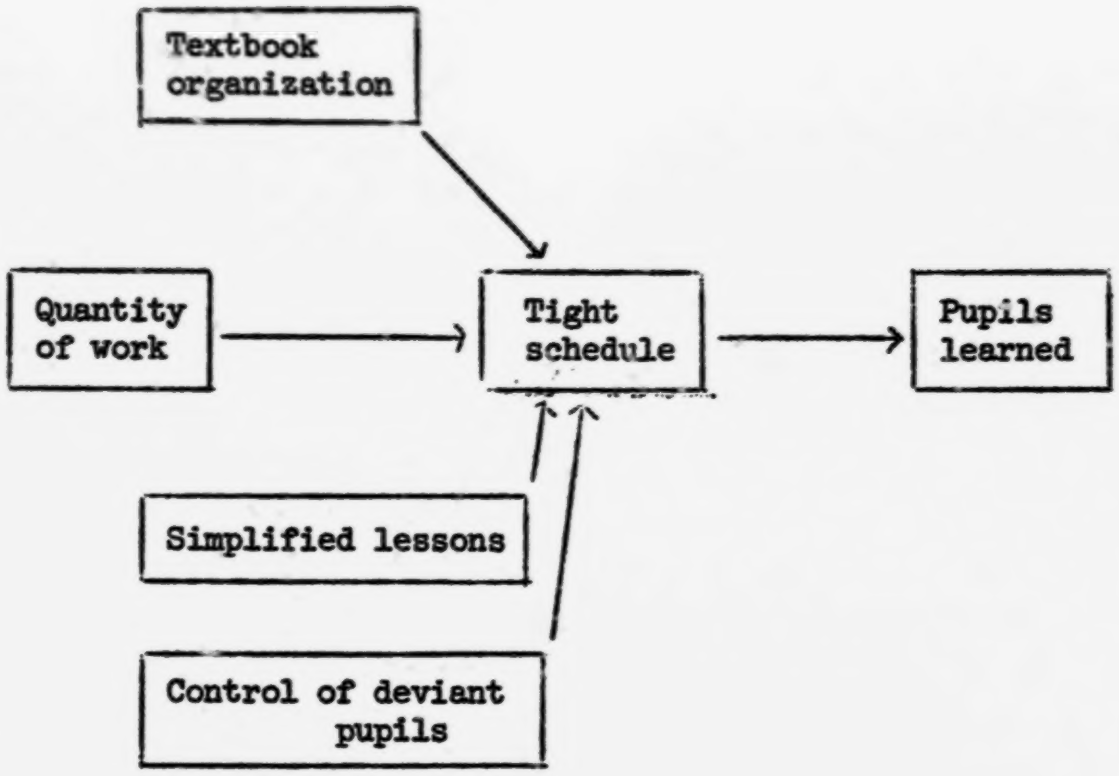
Textbook organization
Quantity of work
Tight schedule
Pupils learned
Simplified lessons
Control of deviant pupils

Figure 5.1 The perspective acquired by Iannaccone and Button's student teachers.

> teacher behavior that they had previously identified as violations of what they had learned at college. Further, they found that following the co-operating teacher's pattern worked to get them out of the immediate dilemma. What worked to get through the lesson at hand or past the immediate problem they faced was re-evaluated as good by the student teachers. In effect, they were developing the idea that 'it works' is a basis for accepting many procedures their previous training had forbidden. (Iannaccone, 1963, p. 76)[4]

Specific learning

Through the medium of a half dozen case studies, Iannaccone and Button present a number of gneralizations of "what the student teachers learned." Paralleling our earlier outline, the girls learned that the cooperating teacher was the most important person in the organization. It was her grade and letter of recommendation which would make the difference. The University supervisor was considerably less important. In our data, the principal was the continuing and important figure. Iannaccone and Button's student teachers learned, usually from their cohorts.that cooperating teachers were quite variable and some were easy to work with and others not. Our apprentices typically learned this from direct experience. A corollary in Iannaccone and Button's data was the gradual reduction of questioning and indirect criticism (in the logs) of the cooperating teachers. In their words,what had begun as "horrors" or "amazements" soon became accepted practice. In our view, our apprentices were not strongly analytical in orientation. However, they were faced continuously with new groups of children and new teachers. This provoked continuous dissonance (and on occasion trauma and high anxiety) regarding approaches to the problems of how to teach.

The "within classroom learning," that is, the art of teaching involved a number of new images, concepts, and actions. As we have noted, Iannaccone and Button call these perspectives. They might be listed as follows: 1) taking the frame of reference of teachers, e.g., "It is the teacher's work, not the pupils' learning, that becomes the center of the student teacher's attention," (p. 57); 2) to use the children for a variety of "chores," cleaning out paint jars; 3) the satisfactions in special activities which go well, e.g., a Xmas party in a kindergarten; 4) perceiving the magnitude of work to be done in the elementary classroom, the need for a tight schedule, the control of deviant pupils, and the use of text materials;

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[4] This is from a briefer published report, "Student teaching: a transitional stage in the making of a teacher." (1963)

5) moving through the schedule leads to pupil learning; 6) learning the skills in working with pupils that move them through the schedule; 7) learning to discipline the children for the maintenance of progress in the lessons, e.g., "In reading I should not be so tactful in telling a child he is lazy and should really make the point felt." (p. 47); 8) to reduce her expectations and then simplify the lessons to enhance the probability of pupil success in working through the materials and; 9) the criterion of success becomes "it works" in "keeping the teaching activity going," (p. 59) that is,moving toward the goals of lesson accomplishment.

It is difficult to grasp fully the meaning of teaching in their data. The teaching set is critical and important. The student teachers see this as the major dimension of the experience. They do not attain a full day's teaching in some instance until the 7th or 9th week. It is not possible to compare City Teachers College heavy accent of "lesson presentation as teaching" with the University program. The more casual references suggest that most of Iannaccone and Button's student teachers lived in a world bound by a textbook and a daily lesson. If this is really so then some very important functional equivalents occurred in manifestly different programs. Most certainly our data concur on the accepted assumption that "getting through the lesson implies pupil learning" (p. 62). This was an implicitly accepted assumption in their data and ours. In one of their cases, Faye's, they describe aspects of lesson presentation. We quote them at length for the issue is critical.

> A subject such as language or social studies is often subdivided into units. Thus Faye, reporting on her new teaching venture the following week, wrote, 'I started the social studies unit on famous men.' Similarly, language has been sub-divided into units on book reviews and movie reviews. A unit is further sub-divided into lessons. Thus, Faye, in her third week, 'began the language unit on book reviews.' At the end of that week she wrote, 'Language lessons are becoming better. . .' Faye saw a unit as beginning on a given day, continuing through its sequentially organized parts, daily lessons, and ending on a specific day. At the end of her seventh week, she concluded, 'The language lessons went relatively well all week. . . Friday, I gave them a unit test in language.'
>
> Lessons, too, may be viewed in terms of their components. Faye stated it briefly in her second from the last week, 'I continued with the middle reading group, which consists of introducing the story, making the assignment, and correcting the workbook.' The elementary student teacher's universe of what is to be taught and learned is separated into subjects which are most often divided into units and further broken down into daily lessons. These in turn are often seen as sub-divided into the presentation of information and the

giving of instructions by the teacher which are followed by pupil activities pursuant to those instructions and some checking or feedback on the pupils' work.

The student teachers in our study had been taught how to develop a unit and how to make lesson plans. They had been taught to relate the purpose of each lesson to the purposes of the unit. But only with student teaching and with participation in the teaching set did they have the experience of trying to put their plans into operation. In that operation, the units became linked to a master schedule of days, the lessons became tied to a schedule of real clock hours and the planned activities within a lesson, a matter of vital minutes. Whatever difficulties Faye may have faced drawing up lesson plans for her college instructors, they were not the same as the difficulties she faced in the teaching set. Thus, after seven weeks of experience in the teaching set, Faye wrote, 'In spite of the fact that I write a main purpose on paper, I'm unable to stick to it and often seem to come around aimlessly from one detail to another without too much continuity.'

The specific difficulties Faye reported in getting through the scheduled lessons may help to illustrate one aspect of the problematic situation as faced by the student teacher in the teaching set. Mrs. Fisher had helped Faye get accustomed to the teaching set in her first week. On her third day Faye wrote, 'I gave a trial spelling test, got in front of the class for the first time. Felt ill at ease.' On the next day, however, 'I gave spelling dictation, felt somewhat better in front of class. Children now seem to expect me to give them their spelling.' But her newly found confidence was shaken when Mrs. Fisher gave her a unit on book reviews in language to begin the next week. 'I was surprised she gave me this unit and felt unprepared to start teaching this much so soon.' Mrs. Fisher allowed Faye to set up her plan for a unit and try it out. Characteristically for the beginning student teacher, it was too ambitious. The Fomest School did not have a library. 'Therefore,' said Faye, 'I borrowed twenty-six books from various libraries.'

Faye reported the unit's beginning. 'I began the language unit on book reviews. Discussed with class what book reviews are. Children, for the most part, eager to participate in class discussions.' Faye had attempted to get the children to understand book reviews. She did not prescribe in detail what they should put in their reviews nor did she use the blackboard to outline a model book review for them. However, satisfying the discussions on book reviews, Faye's failure to make her plans and expectations for the children sufficiently clear, detailed, and simple presented her with difficulties. As she began to deal with these, she wrote at the end of that week, 'Language lessons are becoming better as the children begin to know my expectations and, more important, as I plan the lesson more carefully. I am beginning to understand the need for detailed planning before introducing anything to the class. . . Often I doubt if I will ever become a good teacher.' It may be unnecessary to add that Faye had been told repeatedly in her education program about the need to plan carefully. Nevertheless, her experience in the teaching set led to her saying, 'I am beginning to understand. . .'

In her fourth week, she wrote concerning an art lesson on covers for the reviews, 'My poor instructions showed up in the results. Few of the children really understood what I wanted them to do. I took too much for granted and should have explained and planned the lesson more carefully.' On Monday of her fifth week, Faye continued with the same problem, '. . .as usual, I took too much for granted. . .I fail so often to explain things fully. . .'

Faye moved from the unit on book reviews to one on movies. Her experience this time was better. She avoided her earlier difficulties by specifying in detail what the pupils should put in their reviews. 'I asked the class what they thought should be in a book review, and I listed these things on the board. I asked them to write their movie reviews accordingly. They understood much better what I wanted and what should be in a review.' The movie reviews took less than half the time of the book reviews.

Faye's third unit in language went even better. It neither involved chasing down twenty-six books from various libraries nor the lack of simple, clear instructions. She followed the language textbook closely. 'The language lessons went relatively well all week as I became more accustomed to the book, the lessons, and children. Also, the lessons were so well defined in the book that the children could easily understand them.'

The difficulties Faye faced in putting her lesson plans to work were similar to those noted earlier with Carol and others. As was the case with the others, Faye learned to redefine learning goals as the goals of planned lessons. By successive approximations, she reduced her expectations concerning the children's learning in the subject of language to a few precise and predetermined types of pupil behavior to be fed back to her. In the process, she modified the children's learning to the current performance level of the class. (pp. 63-65)

Iannaccone and Button report incidents of a further teaching set which they do not raise to the level of conceptual analysis, the dyad of the student teacher and a single pupil, the classical tutoring relationship. In their data, Faye's relationship with Mary is described briefly.

> Faye reported her work with an individual pupil, Mary, who was assigned to her by Mrs. Fisher in her fourth week. 'I began working with a girl who is reading on a low third grade level. I helped her with her reading while other reading groups are meeting. I enjoy this work with individuals much more than with the whole class.' Later she wrote, 'Continued work. . .in reading with my poor reader.' At only one point did Faye indicate difficulty in this work. Near the close of her sixth week she wrote, 'Throughout the week, I have been working with Mary, a very slow reader. I meet with her daily in the morning, correct her workbook, and let her read to me. She tells me about the story I assigned the day before. I feel I have the time to devote to this child, if only I knew how to help her.' Apparently, Faye felt good about working with Mary. The only difficulty she reported was her own lack of knowledge. She felt she had time to give to Mary, and she enjoyed this in contrast explicitly to teaching the entire class. (p. 67)

Similarly, there is an in-between area of the teacher and small group, which at least one of their student teachers, Genevieve, found as a long, important but ultimately unsatisfying part of her experience.

> It must be borne in mind that Faye had been involved in the teaching set with the entire class almost from the start. Had this not been so, Faye would probably have been concerned with her lack of progress, as were those student teachers who moved late into the teaching set with the entire class. Note, for instance, what Genevieve wrote in her tenth week of student teaching. She had been working remedially with three children in reading. 'I know,' she wrote, 'I shouldn't feel this way, but I am beginning to get very impatient with this group. At first, I found it to be extremely gratifying. But after working with these children every morning--for the whole morning, I can't help but get a little nervous. I don't feel that I'm a private tutor nor have I been trained to be a private tutor. I realize that there are slow learners in every classroom. This doesn't bother me. In fact, I don't mind working with them at all. It's just that this is the only group of children I've worked with the past month, and it's very trying for me.' Genevieve stated it as clearly as anyone could want. It was 'gratifying' to work with three slow readers 'at first.' Further, she did not mind working with them, but she was impatient with the fact that she was not moving towards teaching the whole class. For the student

> teacher, working remedially with individual pupils is not teaching. (p. 67)

We have argued that "clock hours of time" is a most important latent dimension of a learning program--such as the complex cognitive, motoric and social role of teacher. Iannaccone and Button comment that Faye's first experience in teaching social studies did not occur until the seventh week. In contrast, our apprentices were into social studies lessons in the first few days and teaching all day and all alone within two weeks.

The quality of the work, especially the time perspective of units running over several weeks, demanding non-text preparation on the part of the teacher creates some anxiety but also provokes a kind of experience we saw little of in the "2 x 2."

Summary

We are left with several questions growing out of their study. First, we have a high concern for the need to actually see the student teachers in action. Although reality must always be perceived through someone's filtered perception, we have found it instructive to compare our perceptions as observers with the apprentices own reports on their experiences. Second, their monograph presents very little information on the discontinuities arising from being in class three half days plus one full day. Our apprentices expressed concern about missing Fridays and having difficulties in following the progress of the pupils. Iannaccone and Button present no data on the special issues created by afternoons or mornings in which the student teachers were not a part of the room. The rhythm, both daily and weekly, does not come through their accounts. Nonetheless, Iannaccone and Button through a detailed consideration of student teacher "logs" have described extensively the experience of being a student teacher. The contrast in a "2 x 2" and a "16 x 1" accents the need to look further at other forms of the practicum in teacher education which is referred to glibly as though it contained an intrinsic unity.

Finally we might comment that the contrasting styles of introduction should make for major differences in how teachers socialized in one program act later as cooperating teachers when they are forced, manifestly at least, to operate in the context of the (an) alternative program. In effect, we are raising questions on the role of cooperating teachers and the anticedents of their behavior. Posing such a researchable problem seems a fitting conclusion to this section of our analysis.

Conclusion

Perhaps the most general conclusion from this brief review of the contextual literature is substantial agreement that the teacher-to-be must experience an intensive period of practice or apprenticeship with a skilled and artistic teacher.[5] A general corollary of this imperative, which has been less self-evident, is that there have been few intensive descriptions and conceptual analyses of the variety of on-going programs. As the experiementally oriented researcher is prone to say, the nature of the independent variable is not clearly analyzed nor defined. Similarly, considerable evidence exists on the confused state of the dependent variable, the nature of teaching itself.

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5. Only La Grone (1962) has disagreed with this.

Chapter Six

Model I: Teaching as Inquiry

Introduction

Behavior in general tends to be situational. Teaching behavior appears to be no different. It reflects, most frequently, a reaction to immediate and demanding situations on a basis of what seems to work or what has appeared to work in the past. Insofar as particular orientations or sets of values may have been internalized by individuals the behaviors may appear to be consistently structured; insofar as they have been learned and patterned by practice they may have become habitual. In both instances, however, there is likely to be a characteristic lack of rationality involved in their control. To the extent that values and/or habits become fixed and static--become unconscious and not reflected upon--they may not be amenable to change and improvement to meet new and novel situations. It represents a process no less binding than the inexorable workings of "natural law" that progress is inevitable, whether rooted in the optimistic temperament of the enlightenment or the workings of natural selection and the survival of the fittest with man playing but a minor role.

The function of theory, principle, value in human affairs, on the other hand, needs to reflect a different set of attitudes of tentativeness, experiment, flexibility, inquiry and the potentiality of altered behavior. To provide a learning environment in which apprentices are enabled to flexibly alter their behavior in the light of newly developed purposes and novel situations and to change the given in terms of things valued in the future seems essential to the professionalization of teaching.

Given the conditions of the apprenticeship, that the students are in school situations, that they function under practice conditions, that they are not, in fact, teachers, that they are still a part of the academic perspective in which they are being taught and examined by the faculty and practicing teachers, that they are in fact being evaluated as students preparing to be teachers, then, it appears inevitable that their perspectives will be those of students and that these will be functional in helping them to complete the program. The problem thus becomes, not the examination of teaching and what good teaching is but rather seeking out the expectations of superiors, checking these with one's peers and then engaging in coping behavior that is most likely to meet the demands. The time perspective employed is not the long range one of the improvement of education or seeking to understand and improve teaching and the profession of teaching but rather to meet the situationally based demands in the interest of student survival. The cumulative consequences of the above can be disastrous to one of the longer range goals of the improvement of teaching--the continued growth in teaching as students go into the schools as certified teachers. In fact, the short range time perspective may be dysfunctional--may have a positive disutility in the long run--for the improvement and eventual professionalization of teaching. Under present conditions of the apprenticeship, however, student perspectives permit a high rate of survival and so present practices take on a positive utility in the eyes of both students and teachers. It becomes embedded in the tradition of teacher training and perpetuated in the practices of teachers in the schools. Perhaps going a bit beyond his data Percival Symond states a major thesis regarding the problem of teacher education.

> Mental growth depends primarily on how a subject is taught and on the emphasis in its teaching. . .the evidence leads to the further conclusion that if an aim of education is to increase mental power, the primary emphasis in teacher education should be not on mastery of subject matter but on pedagogical method, and this, of course, gives support to the importance of professional education in the training of a teacher. (p. 36)

This emphasis upon the heuristics of discovery or inquiry into teaching becomes crucial in the training of teachers. Our guess is that only a beginning can be made in the pre-service program and that continued emphasis upon this process needs to become a part of further inservice programs of teacher education. Smith and Geoffrey (1965) make an effort to reconceptualize teaching in terms of a decision making model. In fact, becoming aware of the decision making process and analyzing what underlies the choices he (the teacher) makes involves him in the process of inquiry into teaching and may lead to an increased consciousness of the relation of theory to practice. Smith and Geoffrey (1965) state the problem as follows:

> As we looked to more general theory on decision making, we found discussions of fact and value propositions, rationality, alternative, subjective probability, consequence, effectiveness and so forth.
>
> Teaching often involves doing or not doing something such as tossing or not tossing a chalkboard eraser to a child as a dramatic illustration of a direct object in language. 'Choice behavior' is part of the decision maker's conceptual repertory. It is also part of the teacher's schema. Lying behind such a choice are the teacher's objectives in language arts for the morning. Objectives are goals and values to the decision maker. The teacher suspects that such action on his part will startle a few children, provide a concrete illustration of an important concept, and will give him a chance to compliment lightly or tease gently one

> of the boys for his skill or lack thereof. The decision maker, conceptually, refers to these suspicions as subjective probabilities. The several events which might occur are to the theorist, consequences. Later, when the children report, within another teacher's earshot, such an incident to their friends, there may occur other events which the sociologists call latent and unanticipated consequences.
>
> Our teacher may not only throw or not throw an eraser but he may dramatically snap a new Board of Education pencil into pieces, he may call a child up front and rap him on the head lightly but with a flourish,or he might draw humorous stick figure cartoons on the board. In the theorist's terms, any one of these or any combination are alternatives. They, too, have consequences. The consequences have several kinds of probabilities as seen by the teacher, and we might phrase his behavior as "subjectively rational." Theorists might attack such an illustration analytically with such concepts as objectively rational, organizationally rational, and so forth.
>
> As the observer watched Mr. Geoffrey toss his eraser and break his pencil, and as he talked to him later about the reasons for his actions, he became enthused about this discovery of teaching as decision making. (pp. 127-28)

Thus, one teacher and one professional educator attempted a beginning of an inquiry mode.

The broader elements in such an analysis have been sketched by Schaefer in his book, The School as a Center of Inquiry (1967). His basic value stance is that the school should stand first and foremost as an institution which jointly teaches students to inquire and builds an emotional committment to this "life of the mind." The major anticedent of this goal is a teaching staff which inquires. The prototype of this staff is the "scholar teacher," who might take one of two forms. The first inquires into the process of teaching:

> To the degree that new knowledge about teaching remains within the realm of possibility, some teachers, at least, must be prepared to interpret, test, and apply new findings. Such teachers, it would seem, need to be in command of appropriate methods of inquiry and to have developed a questioning rather than a dogmatic attitude toward their profession. (p. 25)

The second form of the scholar teacher is closer to that of the traditional subject matter specialist. He is the individual whose major energies are devoted to the intensive reconceptualization of the discipline in forms appropriate to the age and maturity level of the child in the elementary school or the youth in the secondary school. His work is perhaps exemplified best in decisions regarding curricular reform. Schaefer eloquently presents this position in his criticism of some of the recent national curriculum movements:

> In sum, then, the new curriculum movement has been relatively indifferent to the plight of teachers. With the kind of casual arrogance only professors can mangage (sic), when they conceive of the lower schools, the essential effort has been to produce materials which permit scholars to speak directly to the child. In important ways the ferment of the university and the spriit of inquiry it engenders have thus been carried to the school. But there is one possibly fatal flaw. How can youngsters be convinced of the vitality of inquiry and of discovery if the adults with whom they directly work are mere automatons who shuffle papers, workbooks, and filmstrips according to externally arranged schedules? To the degree that the spirit of inquiry involves more than logic and necessitates a live sense of shared purpose and commitment, it would seem that the lower schools must somehow be invited to join in the scholar's search for truth. As I see it, the new curriculum movement cannot attain its full effect until it finds viable means of attracting teachers to the intellectual excitement it seeks to create in children.
>
> The curriculum proposals of the 1930's and 1940's, with, as we can see in retrospect, unbelievably stubborn optimism, assumed that teachers could make intellectual decisions while living in isolation from the active world of scholarship. The present proposals reintroduce scholarship to the life of the schools, but, with bland rudeness, only children have been recognized. Surely the kind of ingenuity, imagination, and massed energy which has characterized current curriculum reform can also be applied to restructuring the teaching role. I am fully convinced that unless teachers are accorded full intellectual partnership in both the substance and pedagogy of what they are expected to teach, new sequences of materials, no matter how elegantly contrived, will introduce disappointingly few youngsters to the inherent pleasure of learning. Not only intriguing programs are required but also live models of the inquiring scholar with whom students can identify. (pp. 51-52)

Theory of Teaching: Illustrative Examples

If teacher trainees were working in the context of the scholar teacher involved in inquiry presumably they would be rationalizing their decisions and actions in accord with the basic constructs and principles from instructional theory and its supporting disciplines (e.g., psychology of learning). In some detail we present two illustrations from our experiences, the psychological literature and our observations to indicate the potential of this approach. Concomitantly we illustrate briefly the "scholar teacher" whose inquiry involves the reorganization of content. The degree of knowledge of social studies required in our illustration of the concept of right seems large indeed. Our final brief illustration of "national stereotypes" suggests the large assignment one has as an upper grade elementary teacher in a self-contained classroom.

Development of Concepts

Some years ago, one of the authors was involved in an intensive in-service program in social studies education. This program produced a number of published accounts which fit neatly into our thesis of teaching as inquiry. We would use several illustrations to provide specificity in our discussion. One of their papers raised "The development of concepts" which we would argue is an important element in a theory of teaching as inquiry. They stated:

> Part of our difficulty with concepts in the classroom may be the natural desire of teachers to deal thoroughly and comprehensively with any idea that gets opened up at all. A child's idea of *fairness* is distilled from hundreds of disputes about what is "fair" in scores of outdoor and indoor games and activities. It involves notions of *sharing* and of *rights of ownership*; of *favoritism*; of *competition on even terms*; of *making rules*, *obeying rules*, and *changing the rules*. For all its complexity, however, the concept is built up a little at a time, with no system or plan or organization.

The idea is elaborated in the classroom context.

> History teachers sometimes despair over the difficulty of bringing their subject-matter to bear directly upon important concepts. A textbook or a course of study designed to illustrate or clarify a particular set of concepts would clearly distort history out of all recognition. The events of history are usually arranged in the pattern of chronological sequence or in a pattern of topical development. In such arrangements, concepts appear as they are needed. The subject matter can scarcely be selected to provide for a study of a particular concept.
>
> The teachers who have developed the materials in this report are acting upon a hunch. In plain, if perhaps inelegant, language, the hunch is that our best bet may be to forget about developing concepts systematically, and that we should perhaps content ourselves with taking a whack at every important concept whenever an example of it happens to go by.
>
> The concept of 'states' rights,' for example, can be

picked up briefly in connection with the Hartford Convention. It is true that this example will point up only one limited aspect of 'states' rights'--the claim that one group of states ought not to be able to drag another group into an unwanted war. But this fact will not disturb the teacher who consciously plans to hit the same concept again in connection with the Personal Liberty Laws, and the Nullification Doctrine of Calhoun. He may even plan to shed bits of light on the matter when the class encounters the disputed Hayes-Tilden election, or Cleveland's unsolicited intervention in the Pullman strike.

Each increment of meaning to the concept 'states' rights' will be quite small. Every attempt is certain to fail to reach some students. But there is a better chance that some shots will hit some of the targets than is now the case. Another hunch is that this chance will be further enchanced if a current example of the concept is introduced along with the historical example whenever this is possible. Indeed, it seems unlikely that many students will be able to apply a concept to the present scene if the teacher cannot think of a single example of this sort.

This suggests that, before deciding to focus attention upon a concept, the history teacher should make a serious effort to find some current illustrations of its application.

Such a point of view might culminate in a brief figure such as the one we have reproduced as Figure 6.1, the Concept of Rights. We could easily follow the Committee's work and illustrate our point with such concepts as nationalism, loyalty, subsidy, revolution, and freedom all of which remain exceedingly important--even ten years after the Committee's work and even in a field such as social studies where the particular events change, e.g., civil rights and civil disobedience in the United States and wars of liberation in Viet Nam and military coups in Greece. Similarly, the physical and biological sciences and the humanities might have illustrated our thesis.

Insert Figure 6.1 about here

If our theoretical point is clear and if we assume for the moment that it is also relevant and important, then we are ready to attack our data, the field notes of our apprentice teachers, and ask--to what degree did they have such a construct in their theory of teaching, to what degree did it guide their behavior, and to what degree did they develop facility in its use? The basic fact we have to report is the limited degree to which concept development was a perceived goal of our apprentices.[1] The

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[1] Further evidence on this appears in Chapter 4.

The Concept--Rights

Rights of an individual in a group are those privileges which, in the opinion of the group, cannot properly be taken away.

Aspects of the concept	In current affairs	In U.S. history
1. Rights often originate in custom or usage.	The right of workers to organize and bargain collectively is not seriously disputed in the Western World. Yet, unions were once "conspiracies in restraint of trade." By organizing in spite of the ban, workers made unions part of our habitual pattern and created what is now a "right."	In the pre-Revolutionary period of "salutary neglect," colonial merchants got into the habit of bringing in goods without paying the duties prescribed by law. They did not claim a "right"; they merely got used to "getting away with it." When the British decided to resume collections, the colonial merchants insisted on "rights."
2. Rights are sometimes promoted by the efforts of persons inspired by love of their fellow men.	A United Nations agency, spearheaded by a group of Americans, drew up the Declaration of Human Rights, to stimulate other peoples to seek many of the rights not now enjoyed by them.	Anti-slavery zealots before 1860, such as William Lloyd Garrison, led to the establishment of the right of personal freedom. About the same time, Dorothea Dix spurred interest in humane treatment for the insane.
3. When one individual has a right, a restriction is placed on other members of the group.	A right of one group to be free from segregation practices entails a prohibition against all who would infringe that right.	As religious liberty became a right, our people and our lawmakers were obligated to do nothing to interfere with the right.

The Concept--Rights (cont'd.)

4. Rights become more universal geographically as groups come in contact with other groups.	As the Orient came into contact with the West, the Asiatic peoples began to demand self-government as a right--and the right is now becoming a reality.	Certain of our rights--voting without property ownership, women suffrage, for instance--developed first in our West and spread to the states of the East.
5. The concept of natural rights--rights claimed by man simply because he is a man--has influenced the development of rights.	Self-determination of peoples is now being described as a natural right by erstwhile colonial peoples.	Our Declaration of Independence expressly stated that violation of rights granted by God to all men influenced the decision to demand independence.
6. "Rights" can be lost if not successfully defended against those who would destroy them.	Through Communist success, the people of Czechoslovakia lost all their valued political rights.	Armed uprisings such as Bacon's Rebellion were to hold rights that these men considered established. The Revolution of 1775 was such a defense.

Figure 6.1 The Concept of Rights.

summary notes of a science lesson taught by Miss Lawrence indicates one positive instance of teaching for concept development.

> I've just come from a science lesson with Miss Lawrence and a conversation afterwards. The science lesson involves a demonstration with a volcano and the building of concepts of lava, magma, volcano and cone.
>
> Miss Lawrence did comment that the volcano that she'd made out of plaster of Paris had been constructed in a science methods class at City Teachers College. The lesson went very well, it was interesting, it was informative and it synthesized a variety of skills and outcomes. She was quite upset with the cooperating teacher who kept trying to shush the kids when she thought that they didn't need to be s and when for her purposes she wanted them to come up to the cone and look at the lava that had spilled out, which was potassium dychlorate. My guess is that she has better control over the kids and has more excitement about her teaching than does the cooperating teacher. She had the kids alone yesterday for a good bit of time and apparently it went along very well.
>
> As I watched her I had the feeling that the focus of attention was on the task and the activity that they were dealing with, the volcano and the related information and ideas and that all of the problems of kids talking out or kids doing this or doing that were handled in conjunction with 'we won't be able to hear' or 'we can't see' or 'take turns, everybody has an opportunity,' etc. This kind of style fits very strongly some of my biases on the problems of organization. (10/15)

Another science lesson taught by Mr. Evans shows elements of inductive teaching in an effort to develop a number of concepts related to "Air and Health." However, there appears to be a lack of some major concept as a focal point for tying together such sub-concepts as inhale-exhale, inflate-deflate, pores, lungs, gills, oxidation, and energy.

> 9:03 Science lesson--seventh graders.
> Describes lungs and lung tissues--speaks of inflate and deflate, (37 children). Draws crude cells on board--explains inhale, exhale. Now apprentice draws picture of fish and asks group to draw gills on the fish--two boys do.
>
> Apprentice: 'Now, how about a plant--does it breath?'
> Girl speaks to teacher and leaves room.
> Apprentice: 'Now, how about your skin, what does it have?'

Pupil: 'Air holes?'

Apprentice: : 'Not really--see my hand. It has pores. Now, I'll say some things and you tell us if it has pores, lungs or gills.' 'Dogs?' 'Lungs' etc.

They discuss and guess how many breaths per minute a person takes. They guess all the way from 10 to 75. The apprentice calls girl and boy up. He gives boy watch and tells him to watch girl and count breaths. They go on with lesson. Apprentice brings me text--chapter is entitled: 'Air and Health,' Allyn and Bacon, 1956.

9:15 They read a paragraph and then check on breathing experiment--25 times for two minutes. (Apprentice has beautiful touch with this group--as he brings boy up he gets good laugh each time, i.e., 'Here's a nice, normal boy--let's use him.' He has boy do five push-ups and then checks respiration rate. Apprentice has good eye contact--facial gestures--he's a good actor.)

9:26 Apprentice: 'What is oxidation?'

Pupil reads meaning in glossary of science book.

Apprentice: 'That's all well and good but what does it mean?'

Pupil: 'Energy in cells?'

Apprentice: 'No, there's energy in those shades but it's not doing anything.'

Pupil: 'Body burns up energy.'

Apprentice: 'That's a good definition.' Two times apprentice corrects pupils on spoken grammar, i.e., 'My brother, he is.'

Apprentice: 'What's a way breathing could be stopped?'

Pupil: 'Something in windpipe.'

Apprentice: 'Right, that's a good way to be no longer with us.'

Pupils laugh. Discusses electrical shock and leads into artificial respiration. Brings up two boys on table--has one boy demonstrating (does a good job). (Apprentice

> takes over and demonstrates very well. Pupils are attentive and one of the few times I've seen these demonstrations look effective.) (10/29)

A demonstration of the concepts of "exponent" and "base" as representing a set of operations was the subject of the following lesson.

> This is a slow seventh-grade group in arithmetic. Mr. Nunn, the apprentice, began the lesson by asking 'What did we talk about yesterday?' The response by the pupils was 'Exponent and base.' 'Would you go to the board and show us.' He selected a pupil, there were a number of hands up. 'Let's go back to a topic we had last week in working a problem. What are parentheses, what are braces, when do we use them?' He continued to get good response, many hands and good answers. He then said, 'If I gave you a problem right now would you all get the problem right?' The class responded 'sure.' He then gave them the problem 3 x 10 x 10 x 10 x 10 + 5 x 10 x 10 x 10. A pupil went to the board and worked this correctly. He then asked a pupil to give the class a problem which she did. He asked if anyone had worked out a way--a shorter way to do the problem. One girl had and she demonstrated, The apprentice then asked, 'Can someone show another base?' A pupil came to the board and put the base 20 to the 11th power. He demonstrated a good sense of humor with this. The pupil went to his seat and worked the problem out. He then asked how many others had worked the problem. Four others had worked it and come out with the correct answer. At this point, since it was the last time he would be with them, he pulled together the other work he had done in language, social studies, and study skills, for purposes of review and developing continuity with the work that the regular teacher would continue with. (11/10)

We saw almost none of what the Connecticut group described as a suggested plan of work.

> The suggested plan of attack for the individual teacher is to begin by listing some of the concepts he is most concerned about developing in his students. His second step would be to list under each concept some atatements which set forth significant aspects of that concept.
>
> He would then test the present importance of each aspect by trying to find a clear illustration of it in current affairs, discarding, for the time being at least, any statements for which he could find no present-day applications. The final step would be to select from textbooks and other course materials as many clear and colorful examples as he could find.

> The teaching plan here proposed is to pursue the course of study in the teacher's usual way, stopping breifly at planned points to focus upon a particular concept and bringing in as reinforcement in every case at least one current example.
>
> It is important that the examples selected from the regular course materials as points of departure should not be in the least strained or forced. It would be wiser to omit the examples than to include for this purpose events whose bearing is obscure, far-fetched, or tenuous. (Junior Town Meeting League, 1955)

Beyond the point of view of the "Connecticut group" we might well have expanded the analysis with the burgeoning experimental literature on concept formation and attainment.

Transfer of training

In thinking about teaching as inquiry, we are asking: Is it not possible to exemplify certain theories, principles, or philosophical ideas in the classroom? Further, if this can be done ought it not be possible for apprentices to observe, invent and try out a range of practices consistent with the general ideas selected. Becoming keen observers,for example identifying "transfer" and its possible meanings, may enable the apprentice to modify or refine the general propositions and in turn to invent new and more nearly effective classroom practices. For instance, it appears that a rationale can be constructed for teaching effective communication in all school subjects and not leaving this phase of school study solely to the specialized time for language arts. In fact, if we take seriously the idea that if you want transfer of learning you need to teach for transfer then the English program should, at least in part, be tied to enhancing communication and meaning across the other school subjects. A study of ways of teaching for transfer across subjects becomes a crucial curriculum and instruction problem. Percival Symonds (1959) points up the problems as follows:

> Even though there are unlimited possibilities in transfers from the applications of general principles to particular situations and conditions, such transfer does not take place automatically. Indeed, unfortunately in most instances and for the large majority of pupils, transfer takes place only for these applications of a principle which are pointed out by a teacher and on which a pupil has some opportunity to practice.

Further, Symonds emphasizes:

> The extent to which transfer takes place for the majority of pupils depends on the extent of the applications which are

> pointed out by the teachers. The exceptional pupil is really a genius who extends the application of principles which he is taught in one class to subjects and situations which have not been pointed out and which transcend the particular subject matter in which the principle is developed. (p. 42)

To this point we have suggested briefly only the general idea of improving communication abilities of the schools' pupils, the curriculum problem, a way of organizing, a range of subject matters and a principle of learning. It is now important to note that if teachers are to engage in the above procedures they themselves must have developed in large measure the ability to engage in the process of transfer operations if they expect, in any way, to be effective with the schools pupils. They, in fact, must have learned to learn, otherwise their activities with children may turn out to be random or casual and not directed to the particular ends in view.

As we listened to our apprentices, they did not speak of Symonds and his point of view. They seemed unaware of the simple instructions of Andrew, Cronbach and Sandiford (1950) or Ellis (1965) regarding transfer. For instance, the latter author suggests, after an extended analysis, that teaching for transfer involves: 1) maximizing the similarity between teaching and the ultimate testing situation; 2) providing intensive experience with the original task to be learned, the knowledge of which is to be used later; 3) introducing a variety of examples when one's objective is concept attainment or development of principles; 4) labeling important features of a task (stimulus predifferentiation); and 5) accenting an understanding of general principles before expecting much transfer.

National stereotypes

Occasionally, larger issues of the school's contribution to the perspective of the elementary school child arise; this seemed to be the case in building national stereotypes.

Class begins geography.
10:46 Describes Dutch as 'hard working, strong and clean,' 'scrubby Dutch.' She builds in enthusiasm and specific kinds of experience. Passes out dittoed map of the country. (Netherlands)

(Obs.: The building of national stereotypes is well underway. This would be a fascinating project on the origins--with or without geographical data on the teacher's or school's influences on the development of positive and negative stereotypes. Can do a content analysis of geography books if not the classroom interaction itself.)
(10/26)

To the best of our knowledge the apprentice's did not subject such an approach to further inquiry in terms of national character (Potter), stereotypes (Taba), and so forth.

The interplay between sociological concepts such as national character, the historical and contemporaneous data on Western Europe which the textbook presented, and the experience of the children with the southside "Scrubby Dutch" (in reality a distortion of Deutsch and a reference to Big City's German population) was not examined in any detail by the apprentice as she conceived of her lesson and its underlying theoretical nature.

Summary

In short, we have presented several illustrations from a large number of constructs that are relevant to a theory of teaching. Concept development and transfer of training are important parts of contemporary psychology. Similarly "rights" and "national character" are important substantive issues that require social studies teachers to theorize at some depth in their discipline if they are to engage in significant classroom practice.

Limitations in the Model

To conceptualize teaching as inquiry, and teacher training as an introduction to the process of inquiry about teaching poses several significant problems. For instance, problems arise and choices have to be made in areas where theory and data do not give clear signals. We speak to an illustration or two of this as "When theorists disagree." The fruits of the model seem to depend also on high abstract ability of the apprentices. Our notes are replete with illustrations of limits on this assumption.

When theorists disagree: teacher and pupil responsibility

The dilemma of the "mix" of teacher control over the detailed events and sequences occurring within the "classroom box", and the extent to which responsibility for what is to be learned is a decision to be placed in the hands of the individual pupil, is an open but often partisan argument. Smith and Keith (1967) note further complications arising because of

> . . .the possibilities and problems in the language available for talking about teaching. At this point in time, the education profession, both its science and art, remain so much a personal kind of experience that it is difficult to talk productively about it without having concrete common

> experience. The language is very inexplicit and carries so many multiple references for each term that it is not until one is in the concrete situation that the intended meanings become clear. Not until this point does one translate into behavioral terms of who says what and who moves where in what specific situation. (pp. 307-9)

An excerpt from the "Institutional Plan" of the Kensington School raises the problem of the relation of its language to the ways in which authority relations, organizational patterns and classroom practices will be structured on the curriculum issue.

> Concepts, skills and values form the unifying thread around which learning experiences are provided. Referred to as the spiral curriculum, this approach places major emphasis on process development rather than content development. Although ample provision is made for the individualization of the curriculum, continuity, sequence and integration of knowledge are facilitated through curriculum guides which have been developed. Since organization of knowledge really takes place in the mind of the learner, the structure of the curriculum does not determine directly what is learned by pupils, but influences learning indirectly through helping to shape the learning 'milieu' for pupils.
> (The "Institutional Plan", p. 7, Smith & Keith, p. 208)

Smith and Keith, later in the study, present "a systematic position in educational psychology,"Ausubel (1963), which has both greater precision of language and seems to challenge the major propositions of the Kensington doctrine that the child must assume major responsibility for his own learning in contrast to the proposition that the selection, organization, interpretation and sequencing of materials must be carried out by sophisticated and knowledgeable professionals. Ausubel (1963) speaks to the point that formal school education is a deliberate affair on the part of adults to influence the learning of the young.

> When we deliberately attempt to influence cognitive structure so as to maximize meaningful learning and retention we come to the heart of the educative process. (p. 26)

> Cognitive structure variables, in other words, are the principle factors invalued in meaningful transfer, and transfer itself is largely a reflection of the influence of these variables. (p. 28)

> Since it is highly unlikely that at any given stage in the learners differentiation of a particular sphere of knowledge we can depend on the spontaneous availability of the most relevant and proximate subsuming concepts, the most efficient way of facilitating retention is to introduce

> appropriate subsumers and make them part of cognitive structure prior to the actual presentation of the learning task. (p. 29)

The contrasts pointed up here are real ones of the relation of theory to practice on the one hand and on the other the problem of means and ends (process-substance) as a central curriculum issue. Ausubel challenges the idea of the teacher's role being that of "mere" process facilitator. Also, while there appears to be heavy emphasis upon the "structure of knowledge" in and across the disciplines this emphasis is at all times carefully tied to both a view of the present and potential cognitive maps of the child and to a basic view of instruction and learning rooted in empirically tested propositions concerning transfer, reinforcement and retention. Conversely the Kensington "Institutional Plan" has a strongly stated "idealogical" bias concerning child development, individual differences and democratic values not basically rooted in an empirically based, capable of being operationalized, psychology of instruction and learning.

The apprentices' ability

Scattered throughout our notes are comments concerning the difficulties we encountered in searching for analytical and abstract accounts by our apprentices.

> I am just coming from a meeting with the four apprentices at City Teachers College.
>
> While the meeting was productive it seemed significant in a variety of negative ways also. I'm literally unable to get the people to think at any depth and to any degree analytically about the experiences they are having. The issue and point that I tried to precipitate some discussion around was the lesson plan. They have quite different styles in that Miss Charles makes out very extended ones, Mr. Jennings doesn't make any at all, Miss Lawrence has very minimal ones, and Miss Frank is in-between. Miss Charles was the most analytical in that she talked about the format that she had which comes straight out of the requirements of the school, of the objectives, the materials, the procedures, the follow-up and an evaluation. She talked also of the main ideas and illustrated from her lesson--science, the concept of terms and the principle of the mixing of hot and cold with the resulting cold going down and hot going up. But she didn't have these integrated in any sense with the lesson plan conceived as a tool. These points wove in and out of her discussion but they weren't highlighted in a way that would be useful to her. Mr.Jennings' reaction to all this was essentially "You can't use them, you've got to play it by ear, etc." He did comment that maybe that's why things didn't go well with his lessons often.

> Miss Lawrence cannot be bothered by it. Miss Frank seems to do some of it. It ties in partly with the supervision in that Miss Charles' lessons are looked over and commented upon by her teacher. None of the rest of them have had any extended experience this way. Apparently none have even looked at Mr. Jennings'. Miss Lawrence has had minimal instruction this way. There should be some interesting aspects here when she transfers to Miss Charles' school.
>
> Part of the point that I seem to be making is that these people don't engage in a lot of serious or rigorous thought about what they're doing. They play it by ear, they have a few general guiding rules of thumb, and they work at what they're doing. In general it doesn't seem to be an intellectual issue with them. (10/29)

In a case study, such as ours, the difficult problem of sorting out cause-effect relationships occurs. As we tried, the hypotheses we created appear in Figure 6.2, issues underlying the inquiry model. The broader teacher training program of which the apprentices are a part, the formal doctrine of the apprentice experience, the modes of supervision and the "2 x 2" program itself seem to limit this development. Latently though, the fundamental importance of general intelligence, the ability to think abstractly may well put limits on the degree to which conceptualizing is done and is experienced as pleasurable versus frustrating. Also, and as we will comment in more detail later, the problem of stages in a career seems an important and relatively unanalyzed problem in teacher training--and in occupational socialization more generally.

Insert Figure 6.2 about here

Conclusion

If teaching is increasingly to approximate such an "ideal" model as that of a profession the teacher must possess a knowledge of basic and relevant sciences, must be skilled in their application in the classroom, must accept responsibility to and have control over the application of a code of ethics to the profession, and must accept responsibility for the conduct of teaching in the best interests of his pupils. All teaching in the schools takes place within an institutionalized setting and so cooperative relationships must be established. These relationships in a large organization tend to become formalized, and bureaucratic structures result. The problem then becomes how to resolve the conflicts between the demands of the organization and responsible professionals who function within its confines.

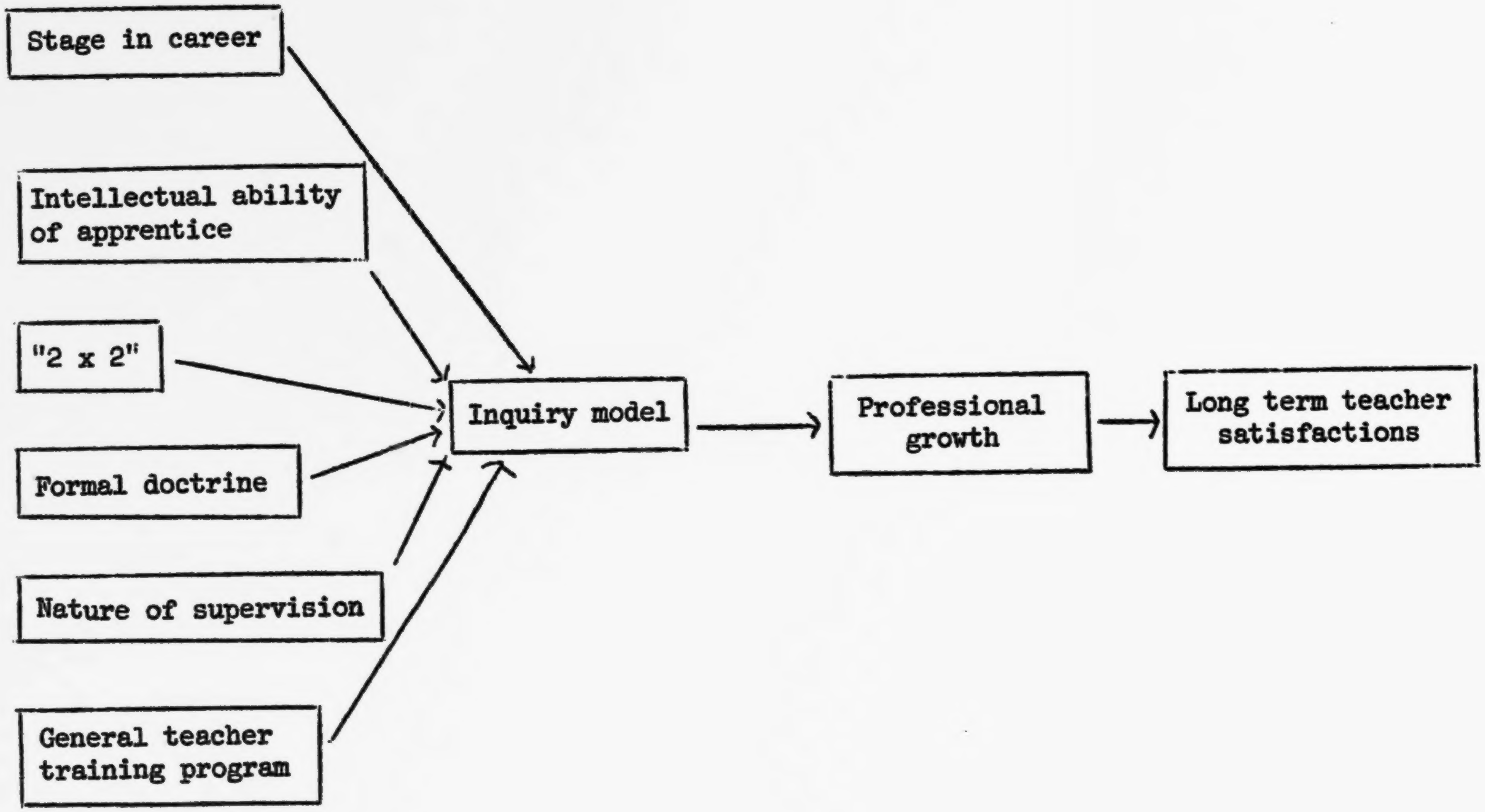

Stage in career
Intellectual ability of apprentice
"2 x 2"
Formal doctrine
Nature of supervision
General teacher training program
Inquiry model
Professional growth
Long term teacher satisfactions

Figure 6.2 Issues underlying the inquiry model.

Elton Mayo (1945) in his analysis of The Socail Problems of an Industrial Civilization notes several recurrent problems of administration. The most relevant for this analysis is the need, if efficiency of the organization and of the individual is to be obtained, to maintain "spontaneous cooperation" within the organization (p. 9). That is, there is a need to minimize the adverse and restrictive effects of superordinate-subordinate relationships and to maximize the opportunities for individuals to assume responsibility for the consequences of the work in which they engage within the broader rubrics of the objectives of the organization (pp. 69-83). Specificity of the rules and expectations will, of course, vary in accordance with the nature of the task and the training and experience of the individual. It appears to us that there can be developed maximum opportunity for individuals (professionals) working together to initiate changes within a cooperative framework (on all levels from the elementary school through the university and including student teachers) and to accept responsibility for the consequences of their actions. This demands acceptance of a working norm which states that they must continuously inquire into the consequences that result from their joint behaviors and alter their activities in directions most likely to achieve the desired results. Failure to accomplish the above can result in goal displacement--a tendency to substitute means for valued ends--a decline in professional responsibility and a characteristic lack of intelligence on the part of individuals within the educational enterprise. What then is it necessary for teachers to be able to do if they are to become independently trustworthy within the cooperative system? At least one aspect of the problem relates to the teacher's ability to develop understandings concerning the relation of theory to practice and practice to theory and to operationalize this in his every day and long range behavior. Crucial to this understanding is the necessity of gaining some sort of systematic feedback as a consequence of practice.

How to break through the coercions of the culture in general and the particular sub-culture of teachers and teaching in order to "unfreeze" their skills from the cloak of routine and established practice becomes a question worth asking. How can we train professionals? Iannaccone and Button (1962) present the following view.

> Teachers, we contend, are not trained as professionals, nor as most effective teachers, until they are trained to make independent judgements in the light of all applicable knowledge and in the light of the probable future welfare of their pupils, and to act on those judgements. (p. 5)

"There are [undoubtedly] many excellent teachers, who, as Dewey observed cannot describe the rational basis for their own excellence." (p. 5) They have not learned to subject education and teaching to a process of inquiry and so behavior tends to remain at the level of the unconscious, half-conscious or intuitive levels subject, often, to the whim or caprice of the moment, unable to be communicated effectively and only able to be copied. If we are to make an educational breakthrough:

> The quest for certainty by means of exact possession in mind of immutable reality [must be] exchanged for search for security by means of active control of the changing course of events. Intelligence in operation, another name for method, becomes the thing most worth winning. . .Knowing marks the conversion of undirected changes into changes directed to an intended conclusion. (Dewey, 1929, pp. 204-205)

Breaking through the wall of compliance can only occur as teachers and administrators working together create the conditions under which the examination of instruction can occur and under which ultimate authority resides in the act of teaching and the consequences that flow from the action. To become professional, teachers must accept the responsibility.

Failure to establish schools as "centers of inquiry" places conditions upon the pre-service training of teachers and seriously limits the possibilities of ongoing programs of inservice education. In addition,it sharply curtails the kinds of school-university communication that can occur. It results often in a kind of tinkering with trivia, with the inconsequential; it may result in advice giving but no fundamental attack upon serious educational problems (the university tends to be divorced from any responsibility for the consequences of its activities); it seriously strains the possibility of a continuing dialogue (the relationship continues, if at all as a series of "fits and starts"); prospective teachers can only wonder into what kind of jungle they have been cast by the fate of circumstance. They exist in an unplanned world except at the most superficial levels. The organization is not seriously prepared in an intellectual and emotional sense (only bureaucratically) of coping with the problems of helping the student teacher to seriously inquire into what teaching is about and the college or university is "hamstrung" by the conditions of practice. All parties to the affair capitulate to things as they are and the perpetuation of mediocrity in teaching continues. The growth of meaning in teaching--for the most hardy--only takes place in the face of overwhelming odds.

Chapter 7

Model II: The Psychomotor Analogy

Introduction

Our experience has been that productive thinking in a field often proceeds through the use of analogies. By this we mean that the knotty problems in one area often are unraveled a bit by using concepts and modes of approach from more highly developed fields. As we looked at our apprentices, we were impressed with what looked like the development and learning of a skill. Hypothetically, if one poses the problem of teaching as a skill, then the literature and mode of approach from the skill learning area might provide a fruitful way of exploring what it means to learn to teach. The first meeting we attended redintegrated earlier and related ideas on such a possibility. The notes relate this early reaction.

> The cooperating teacher has an elaborately worked out document which she passes out to each apprentice. This includes the schedules, three forms, and a variety of general advice. There are long lists of do's and don't's. She picked out and highlighted a few of these. Some of them as mundane as handwriting, penmanship and talking to the class rather than to the chalk board. One of my major impressions here was the notion that teaching is really a craft or a trade and that the apprenticeship is a very relevant word. All of this carries overtones of Dan Lortie's analysis of teaching as sub-professional, a craft. Another way of putting the issue is that teaching is considered a complex, psychological, social and psycho-motor skill. As in many skills, there are a whole variety of very small, mundane things that one has to do, to coordinate, and to attend to if one is to do it correctly. Within this same analogue there seems also to be a pretty clear criterion statement of performance. In a sense I would guess that the cooperating teacher and City School District has a pretty clear idea of what it considers to be good teaching. Whether this image relates significantly to any or all kinds of pupil learning is an open question. In some senses, however, from the teachers' and the apprentices' points of view it's an irrelevant question. One of the issues that seems to me to be a good problem at this point is the characterization of this image of "the good teacher." (9/14)

On occasion, as one observes in a naturalistic setting, the seed of an idea arises which has the potentiality of providing a framework or theses for ordering a series of phenomena. We think this occurred in the analogy of teaching as a psychomotor skill. While the notes contained a few precursors, the idea bloomed most dramatically late in September. The field notes summarizing an hour with Miss Charles carry the idea.

> As this discussion went on I was struck by the analogy of teaching and psychomotor skills. This, it seems to me, is a very good lead and one that warrants considerable attention. As the cooperating teacher was describing the way things went there were overtones of sequencing, coordination, perception of minimal cues, of behaving in kind of an intuitive free and easy style with much less of a cognitive component. I am reminded here of John E. Anderson's old comment that once you get a psychomotor skill such as a well learned golf swing then you don't want to think about it at all. You just want to do it. This was very heavily the kind of thing that the cooperating teacher was saying about teaching. Specifically she thought Miss Charles wrote very beautiful lesson plans but was perhaps too fixated, and that's my word, on the plan so that she couldn't move easily and improvise as other situations arose. She was most clear in stating that you had to have an idea of what you wanted to do and where you wanted to go and have that clearly in mind, but that you shouldn't be bound to it. She had a good bit of difficulty putting this into words as she tried to say it. Another illustration that she gave concerned the break between each lesson and the fact that they should "melt," and that was her word, together. In her words also some of this would "come with practice." In short, a good bit of this ties in with the notion of teaching as a craft or a skilled trade or an artistic performance.
>
> Another concept that came up repeatedly was that of "losing the pupils." This was in reference to a long reading lesson, approximately 45 minutes, which Miss Charles taught. The cooperating teacher was willing to entertain the reasons that the lesson was so long and Miss Charles had really very few except that she wanted to finish one section and hadn't really noticed how long it was taking. At the same time she commented that part of teaching is knowing when to stop and the "losing them" perception is one of those times. She indicated also that it is important to have "something tucked away" that the teacher can move into in such circumstances.
>
> Around the "losing them" phenomenon were further images of the artistry and the notion of teaching as a skill.
>
> Another comment that the cooperating teacher made concerned the "lack of confidence" and fearfulness which she thought Miss Charles had. Again, she saw this as perfectly normal and one of the kinds of things that apprentices have to get over. This kind of inhibition continually gets in the way

> of the smooth performance of any kind of sequenced skill. This also seems to be a part of the cooperating teacher's general position on the development of apprentices. She sees these issues as a series of problems that the apprentice must face and must work with and that over time, and what she would describe as the normal processes of learning, one comes to acquire them. She, herself, doesn't seem much agitated or much in a rsuh for them to be mastered, for once and for all, but rather she acts much like some of the child development people when they talk about a young child gradually maturing and coming to take his place as a well socialized being in the group. She would fit, I think, quite nicely as an illustration of Stephen's conception of spontaneous schooling as this might apply to the learning problems of the apprentice. (9/29)

In this chapter we bring together a tentative and illustrative statement of principles and issues in psychomotor learning as we have gleaned these from our experience and the relevant psychological literature, e.g., Bilodeau (1966). To remind the reader that such other well studied issues contain internal inconsistencies, we cite the beginning paragraph of a preface to a recent research conference.

> The field of motor-skill acquisition is a part of experimental psychology and one of the siblings of the learning family. Those who work in the area think of themselves as contributing more to _learning_ and less to _motor_ and few investigators care much about motor-skill _qua_ motor-skill. Rather, the research emphasis is upon the variables and explanations of learning. ; . . (Bilodeau, p. vii)

Two Lessons

On a Thursday, late in October, one of the investigators observed back-to-back lessons taught by two apprentices. Though they contrasted sharply in several respects, they both presented such a richness in the detail of learning to be a teacher that they provide a concrete focus for thinking through our psychomotor analogy.

Lesson One

9:06 I arrive late--wrong stop at first. The apprentice moves about room checking papers. The kids have spelling work out. There's a good bit of quiet chatter among students as they wait for her to finish checking.

9:10 "You had pp. 2 and 3, p. 12. . . Who did 2 and 3?. . .

Pass your papers forward."

(OBS: There is no animation. No excitement. Kind of a low paid postal clerk image.)

9:12 She enters into a kind of conflict situation over the undone homework. (OBS: Some more of the pharisaic virtue. She takes on stern view.) "You'll have to do it for next time. You'll have spelling test tomorrow. Let's look at p. 14."

(OBS: I don't think words could describe the quality of vague purpose in lesson, the lack of animation, the moralism, the "dumpy" appearance, etc. A T.V. tape and audio would be most helpful.)

9:17 The lesson begins on #2 and 3, p. 14. This picks things up a bit.

(OBS: The questions she asks don't elicit the answers from the kids. The cues are too distant and hence a half-dozen of the best students err and the group falls flat. All this centered around varying usage of "man.")

9:21 Moves on to "hamper."
"Who can read this?" (OBS: Changes the flavor and direction of the lesson.)

(OBS: A collection of questions and pairing them experimentally to provoke the reactions. These should build toward a psychology of questions.)

Covers in rapid fire--homograph, hamper, haw, bank, etc.

(OBS: The general concept and the illustrations all get jumbled in the kids' mad chase to be first and to get called on.)

(OBS: Raises earlier point, from another day. Miss Frank and Miss Lawrence have spoken explicitly of "responsiveness" as the major cue for how things are going.)

Apprentice beams as three-quarters of the kids, "oh'ing and ah'ing" wave their hands to be called upon. She accents how noisy they are and the meanings of the words rather than the actual substantive meanings.

(OBS: Tough problem here of what's relevant and what's a red herring. Frequently she'll lose the point of the lesson by correcting a child's grammar or being moralistic about turning in a paper (or she just asked, "When did you do it? . . . Just now . . . That's what I thought.") I guess my personal bias demands that the substance of the lesson--the activities on the way to the basic objective--must always be the sine qua non.)

9:32 The kids are all busy now looking up the next set of words and writing down the meanings of the homographs.

9:35 "Let's look at sentence 4."
"Bats live in the old barn."
"What would you look up?"
Someone suggests "bats," later she gets "bat" from someone. Accents root words and need to look it up.
This provokes her judgment to talk about "root words," p. 15. Several kids don't like this.

(OBS: They probably already know it.)

Many continue to work on the written assignment. Others reluctantly come to the "Root word" page.

She then enters into another of what seems to be an abortive "Who's looking at p. 15?" "What is the past tense of 'mar.'" Asks why no roaming and roamed while we have gazing after gaze. Finally gets to principle. If spelling changes, dictionary gives these after definitions. Illustrates clearly with sad--saddest, etc., and city, cities, etc.

9:42 Makes a homework assignment for next Thursday. (OBS: Seems a long time off.) There's a lot of traffic outside. Only a child or two looks up and is distracted.

(OBS: This reminds me of contagion and a conversation with Miss Lawrence of a contagious interest and excitement in trying to motivate a group more effectively that her cooperating teacher. This would provide a neat twist on Jerry Davis' (1965) control of contagion--especially of a negative, non-goal oriented variety. How do you get the positive enthusiasm to spread? His design should offer a mode of approach.)

9:47 Lesson continues now with root words. Spelling of "slim" and derivatives, rope, etc.

(OBS: In some instances one might laud this as flexibility. It doesn't feel that way. I guess I would argue that such flights should occur, they should not be as long, they should not culminate in written assignments, etc.)

9:50 Put these away now. Take out your English books. Have a week to do. Write down what you need to do. Kids shuffle about as they change.

Lesson Two

The notes are quite self-explanatory. The activity is geography; the grade level is fifth and sixth.

10:53 Arrived in the middle of the geography lesson. We're on Belgium today. (OBS: In a half minute I feel I can detect the difference between her and last apprentice.) She asks for cities and puts them on the blackboard. The cities and products are compared to a similar list of the Netherlands.

Belgium	Netherlands
Antwerp	Amsterdam
Brussels	Rotterdam
	The Hague

She makes comparisons between Rotterdam and Antwerp as ports and Brussels as a cultural center. Has the kids search for answers: steel production, craftsmanship, etc. "What do I mean by craftsmanship?" Questions re flax, what is it, what's it used for, etc.? The making of fine linens, that's what we mean by craftsmanship.

11:00 Returns to Antwerp. "We'll want to put it on our maps." One child raises some kind of molded and machined product [illegible] she moves back to hand work on guns, craftsmanship, girls' caps, and serving skill, etc.

A child volunteers re Antwerp and back she goes to the board outline.

Belgium

busy port--Antwerp--2nd largest city
capital --Brussels--largest city

11:05 As they finish discussion she has them read 98-104. "When finished you can come up and put part on bulletin board."

11:06 She goes to fifth grade. Indicates they don't need to come to the map; have maps in book, etc. They continue work on their maps.

She's back to the sixes and "takes on" individually one of the transported kids who has not responded to the questions. "You haven't answered a single question! How long do you expcet to stay in the room? . . ."

(OBS: She assumes she has total authority. What goes into a self-perception and perception of the situation that provokes her behavior provides cues to the kids that she has authority which they then accept. A self-fulfilling prophecy in the best sense.)

11:12 She cuts 3 x 5 cards in half. Takes out felt markers and begins to have kids come up to work on bulletin board. Two boys, Tony and Fred, remove pictures from board. Kids file up to the desk and she tells them what to do with the small pieces of paper. Mostly putting the names of cities on slips. This is on a first come first served basis. Shirley, a transportee, takes first assignment. Tony is asked if he can draw a ship. One of girls gets "Antwerp" etc. Another gets Brussels and is instructed to write complete sentences about the city, e.g., "Brussles is the capital." Several boys instructed to draw ships and "we'll pick the best one." She runs into resistance from a boy and she explains further, tells him he can, offers illustrations, etc. He goes back to seat, a shade better than heel-dragging. (Apprentice gives me a knowing glance.)

The room approaches a bee hive. Most kids working on assignments, many on special tasks, a few in nonsense.

(OBS: As I watch the varied enthusiasm I'm reminded of the comments by a teacher in Miss Frank's building about Miss Frank's current class. One dimension here was positive affect in school activities. If one built a scale of all the kinds of things that happen in an elementary class and asked for simple like-dislike discriminations, one might have a beautiful measure of sentiment toward school. Classes varying widely here could be subjected to varying approaches by teacher curriculum, etc. Ties in neatly with earlier work on pupil mental health, one of the Nobles County tests--which is general positive cathexis rather than specifically to school. Might discriminate out in factor analysis of earlier instruments.)

11:25 Now the class continues to be busy in a variety of subjobs. This freedom in activity and interaction spreads (contages) to other non-task interaction. Some of the boys tap each other with pencils. One of boys bothers a girl to the point she raises complaint with the apprentice.

In effect, there seems to be two kinds of contagion--those who work interestedly on aspects of the project and those who move to nonsense. Door is opened for a few of the "troublesome ones" to have more occasion for raising difficulty. Rather than simple cues from one central authority in traditional classroom, the kids now have multiple cues--interval, their peers, the special job each has, the coordinated aspects, and the teacher. These differences help specify the intracacies, the difficulties and the beauties of alternative teaching strategies. It also suggests some special talents on the part of the teacher--clear concept of where and how project is to go, confidence in self and kids, ability to tolerate varied activities and interaction and resulting occasional confusion and conflict, special project skills (drawing, coloring, cutting, and pasting, etc.)

11:37 At this point 10 of 15 sixes are out of their seats.

11:38 The reluctant boat builder has done a beautiful cut-out with black and white construction paper. The apprentice indicates through compliments. Gets him the Elmer's glue-all which he needs at this stage. He goes on. She returns to three others who have questions.

Through all this she continues a battle with one of the transportees. Corrects, critically, his grammar and has little sympathy. He returns to his seat and mostly sits. His cohorts are doing seat work.

(OBS: Important methodological issue here in that the classroom is really not a single entity. She is running about half-a-dozen shows at once: (1) two grade levels; (2) those on the project; (3) separate jobs within project; (4) a continual discipline battle; (5) seatwork of several sorts--past homework, current lesson and tomorrow's assignment.)

11:44 Has 5's clear desks, "Going to play a game." One boy objects, she says, "Want to finish your map?" He says, "Yes." She says, "Okay." He's happy. She puts number chart on board.

	6X	
12	36	42
18	6	30
48	24	63

Game starts, almost all kids focus in. After a couple of kids have worked through, the game is understood and moves along. She had started a boys vs. girls, altered into one side vs. the other. One of "markers," a kid who talked, was her "discipline problem." (OBS: She has some of the non-personal aspects that Geoffrey had.)

11:53 Game over. Kids go back to finishing and cleaning up activities and desks. She lets them go pretty much their own way and assume responsibility for selves. Queries re lunch checks. Some kids who've started playing games themselves are sent to seats. She becomes directive in moving individuals making noises to seats. Everyone about ready for lunch. The boards get erased. Drumstick move from being drummed to dueled to being put in desk of owner (at her request) and back out. She tells them to get in desk.

11:58 Lunch room eaters get wraps. Cooperating teacher is in. The apprentice continues to run the room.

The Nature of a Psychomotor Skill

The analysis of psychomotor skills by psychologists has suggested a number of generalizations. These include the multitude of substitutes constituting any socially significant psychomotor activity. The erroneous conception of general motor ability is an important discovery of the learning theorist.

The multitude of subskills

One of the important truths of psychomotor skills lies in their structure, in reality a multitude of subskills. For instance, one of the authors has recently been involved in learning the skill of scuba diving. To anyone who has been to the movies or watched the various television episodes the underwater diving looks very simple, for the swimmers move with a poetic quality in the environment which permits a flowing motion in three dimensions, albeit slow motion. The neophyte, however, soon finds that such fluid performance contains many subskills: wearing a face mask, breathing through one's mouth, kicking with flippers, and so forth. Each of these requires special practice and mastery. The mastered units are then integrated into the flowing performance. Anyone who experiences the front roll entry and the momentary dizziness and loss of location in the water, and the entry of water into the face mask, with the resulting need to "clear the mask," can appreciate the nature of the smooth, perfected performance of the expert.

Our two illustrative lessons would suggest that teaching has many component parts: presenting information, disciplining a student, asking questions, utilizing special talents, and so forth. The cataloguing and organizing of these into productive clusters was a major task of Chapter Four. An extended direct attack on the definition and classification of the major subskills seems an important next step in a theory of teaching. The move to such new approaches as "micro-teaching" seems well in accord with the development and change in the subskill part of our analogy.

Response availability and selection

Theorists in motor learning distinguish between "response availability" and "response selection." Irion (1966) comments:

> For those who have been concerned with the learning of motor skills, at any rate, it would seem that there has been much more concern with the problem of acquiring responses, as such, than with the problem of selecting from among responses that have been acquired previously. (p. 3)

He argues that both laboratory and practical learning situations can be placed on such dimensions. Most investigations have taken middle level tasks on both dimensions, for the high-low category deals with trivialities and the low-high category deals with extremely difficult tasks. Figure 7.1 contains such an analysis in diagrammatic form.

Insert Figure 7.1 about here

In the apprentice teaching situation further problems arise because the "core interpersonal skills," as we called them earlier, have not been identified in teaching. The variations in the degree of trainability of such skills in a short program and the alternative problems of selection from available repertories have hardly been discussed in teacher training. In this regard, the psychomotor analogy seems most stimulating.

General motor ability and general teaching ability

As we continue to pursue our psychomotor analogy, another significant generalization arises.

> Some interesting discoveries have been made. For example, results show that there is no such thing as general physical proficiency or general psychomotor skill or general manual dexterity. Rather, each of these areas breaks up into a

Response availability	Response selectivity: Lo	Response selectivity: Hi
Hi	Reaction time	Selective Mathometer
Lo	Pursuit rotor	Beethoven Sonata

Figure 7.1 Issues in response availability and response selection.

limited number of unitary abilities. (Fleishman, 1962, p. 140).

Our lay language and description of the "natural athlete" or of the "motor moron" does a serious injustice to the reality of psychomotor skills. Specific skills such as reaction time of the hand, power in bodily thrust, and speed of bodily movement, as in running, tend to be minimally correlated. This means that the individual may have talents in some regards and lack of talent in other regards. When this is coupled with the fact that the range of sports and other psychomotor activities is so great, it means that almost any individual can find some sports in which he can become quite proficient and equally some sports wherein he will have considerable difficulty. Even within sports such as football, the man who plays tackle and the man who plays offensive quarterback or safety may have very different kinds of abilities. More generally in psychomotor learning this independence of abilities has important consequences as one juxtaposes it with the multitude of subskills phenomena. Simply, but significantly, put most individuals will have an easy time at some points and a difficult time learning at other points. For instance, to observe the scuba diver learning to clear his mask, which means exhaling air through his nostrils to remove the water which has seeped in, is an easy skill for some who learn to tilt the mask gently and exhale as they lie on their back in ten feet of water. For others it poses what seems to be an insurmountable barrier. Similarly, the person who has mastered this readily may find that his ability to jump into the water without submerging very limited while his cohort who had the difficulty with the mask may find this ridiculously simple.

As we observed our apprentices, we were struck in part by the "natural" overall skill of some and limited overall ability of others. Later, more particular strengths and weaknesses appeared. For some, issues of classroom control became salient, for others sequencing of questions was important, and for others dependence on instructors' manuals arose. In short, there seemed to be "classroom styles" relevant to some patterns of ability and not to other patterns. The donning of relevant cloaks is a major problem for further analysis. An extension of this same point suggests that the situation in which one exhibits the skill is of critical importance. With some of our apprentices they seemed to perform much better in one building than in another. These interdependencies with particular abilities--or more generally personalities with attitudes, opinions, and preferences--are necessary next steps.

The transfer of relevant skills

Most psychomotor skills cumulate upon one another. For instance, to pursue our scuba diving illustration, being able to swim well is an obvious prerequisite. To have possession of a strong flutter kick, an ability to surface dive, and a relaxed, comfortableness in the water is "half the battle." One might say, of the total repertory required, one has already attained a large number of the necessary subskills. Another large body of the components are totally new as our discussion of the multitude of subskills has indicated. Finally, and of significant proportion, are the skills which involve negative transfer. For instance, the swimmer who has learned to tread water with an easy combination of a frog kick and a scissors kick finds that the movements with an extended fin, some ten to twelve inches longer than one's foot, requires a different set of movements to remain floating with the easy, relaxed quality he once possessed. Similarly, the swimmer who effortlessly has taken in most of his air through his mouth and expired partially through his nose as well as his mouth to keep his nostrils and sinuses clear finds that the face mask prevents the operation of these well-practiced skills. To "reach" for air as you break surface and to find nothing but the partial vacuum of the mask can be an uncomfortable experience.

As we think of apprenticing in this context, almost no systematic verificational data appears. Our notes suggest the potentialities for the exploration of this area. Miss Charles' capitalization upon earlier public speaking experience in teaching literature, Miss Lawrence's well organized directive skills and Mr. Jennings' inability early to give directions all seem very significant and relevant. The contexts in which they were learned and the capitalization upon them seldom appear in analyses of student teaching. In effect, we are suggesting that not only is a taxonomy of teaching subskills needed, but also a conceptualization of prior experiences. Obviously, the empirical relationships among these background factors and the subskills need to be established before their use in student teaching can be implemented.

Equipment and materials

In the eyes of the outsider, physical education instructors often seem to make a fetish of "proper" equipment. The principle upon which they, the physical educators, seem to rely is that performance is enhanced as quality of materials increases. The extrapolation, for our purposes, is that the efficiency and ease of learning increases more rapidly also. To draw once again from the scuba illustration--parallels are found. In scuba, two basic kinds of equipment are available for moving the air from the tanks to the diver: the two-hose regulator and the one-hose regulator. A necessary skill in diving is the donning and doffing of equipment, tanks, mask, and fins, in ten feet of water. The purpose is to allow you to handle a variety of emergencies which might arise which necessitate getting out of or recovering one's gear. The skill involves swimming into deep water, removing the tank, the fins, and the mask and then surfacing. After a brief period of treading water, one surface dives, finds the tank, begins breathing, puts on the mask, clear it, puts on the tank (usually by flipping it over the head), and then dons the flippers. Complications involving the materials enters this way. With the two-hose regulator one has several additional problems: first, in doffing the equipment one must shut the air valve at the tank or the equipment will go on "free flow," a condition of continuous air loss whenever the mouth piece is higher than the tank. This is the last operation before one surfaces. As one tries to recover the equipment, the first operation one performs underwater is opening the main valve. Second, one must clear the hose. This involves exhaling forcefully and abruptly to remove water from the hose. Then one can inhale. While this sounds simple, and it is for an experienced diver, one must remember that all of these initial operations occur in ten feet of water with air only from the last mouthful one obtained before the surface dive. With the single hose regulator, the equipment does not need to be turned off at the tank; a purge button exists which automatically clears the hose (with air from the tank rather than from one's lungs). In effect, the equipment has characteristics built in which help one reach his goals. To heighten the specific point we are making in this section, the authors would point to two other chance events connected with the equipment which occurred as one of us took his first trials in "doffing and donning." It happened that the two-hose equipment possessed both a sticky valve and a slight hole in the intake hose. The sticky valve meant that it was extremely difficult to turn on the air after the surface dive and the hole in the intake hose meant that it was impossible to clear the hose completely and that one was always greeted with a partial mouthful of water with that first gasp of air. Needless to say, the learning was extremely difficult and frustrating. The "buddy" with whom the investigator was working was traumatized at the struggles. He already possessed considerable fear and viewing the struggle left him quite frightened.

In essence, we are saying that many psychomotor skills have integral relationships with material props. The variety of these props related to teaching is quite large. The chalk and blackboard, the textbooks and supplementary materials, the range of audio-visual materials, equipment, and paraphenalia, the construction supplies and so forth suggest a number of items an apprentice needs to integrate into her repertory of teaching subskills. Our second illustrative lesson indicates the myriad of material and equipment aspects of very brief and simple lessons which appeared in the part of one hour.

Confidence: an Illustration of the Relationship Between Analysis of a Skill and Teaching the Skill

The psychomotor literature suggests that confidence in one's self is a most necessary ingredient in performance of a psychomotor skill. As one "loses confidence," becomes anxious, the collapse of even well practiced habits can occur. Similarly, the physical educator speaks of individuals and teams which are beaten before they start. For the moment we will treat anxiety as a component of the motor skill learning phenomenon, although we have strong feelings that it might better deserve independent discussion. Anxiety is an emotional reaction characterized by experiential components of discomfort, general malaise, inadequacy and dread of unknown consequences. Physiologically the reactions include accelerated heart beat, perspiration, tremor, and muscular tenseness. Some people, and at least one of our apprentices seems to qualify in the regard, carry a good bit of this reaction with them all the time. Most people experience some of the reaction in new situations for which they have little available responses. This seemed to be true of almost all of our apprentices as they moved into teaching.

Learning theorists such as Deese (1962) indicate the complexities of this element in psychomotor learning. We present Figure 7.2 as a summary of his argument.

Insert Figure 7.2 about here

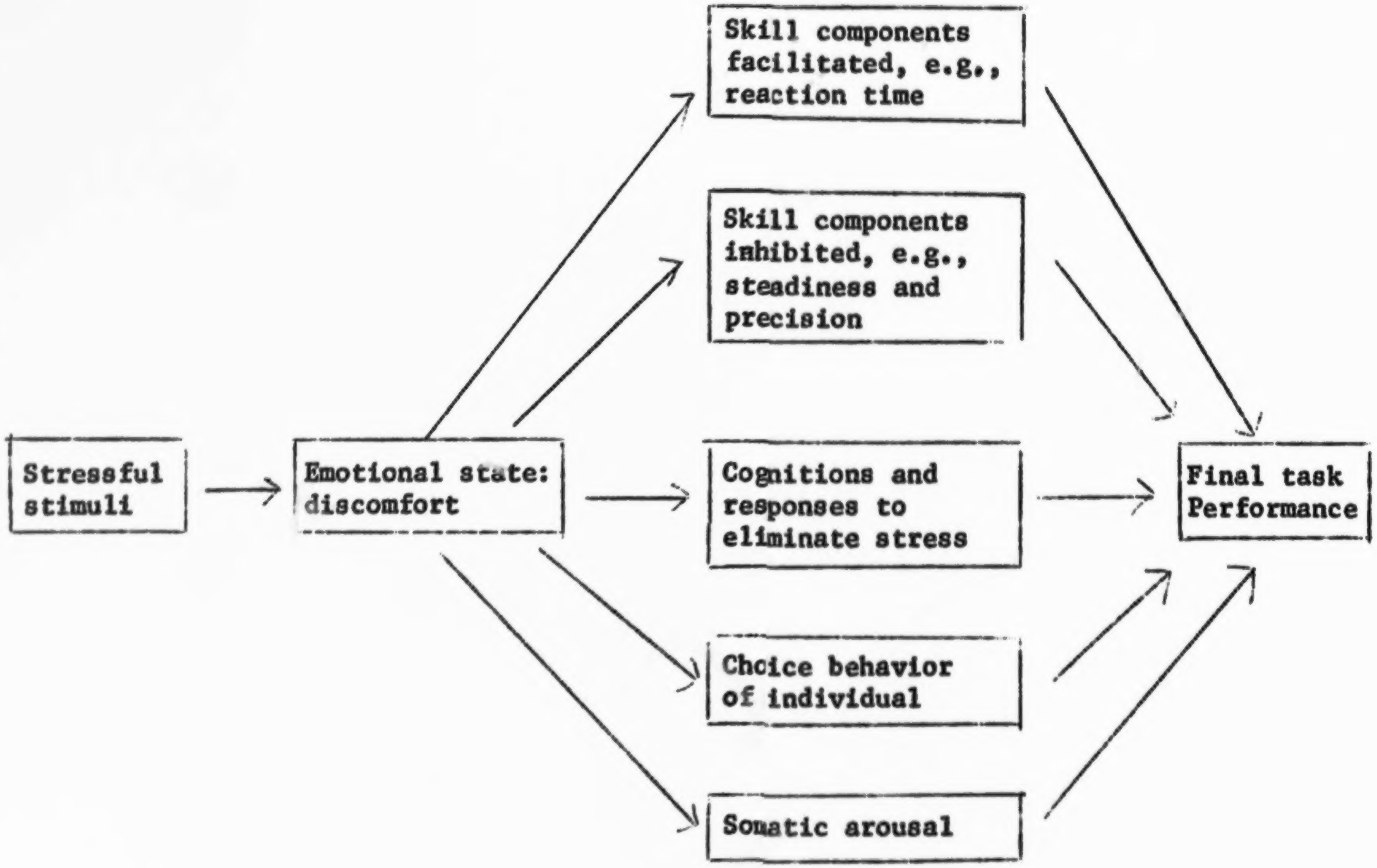
If we ask our data--Of what importance was confidence and anxiety in our apprentices?--we find several significant generalizations. First, our apprentices varied markedly in the place they found on this continuum. Second, it seemed linked tightly into complex configurations of variables--both theoretically and practically. Third, the "2 x 2" system seemed to present few possibilities for altering anxiety into confidence.

Antecendents and consequences of anxiety

As we have already indicated, some persons carry with them what the psychiatrists call basic anxiety or free floating anxiety. As such, it is readily available to be attached, associated or conditioned to any aspect of the environment which comes along. In addition, we have alluded to the fact that the demands of any new and difficult task for which one does not have readily available and appropriate responses produce stress, frustration and generalized emotional reactions. In addition, the individual, as the educationists are prone to say, brings his total personality to the learning situation. Most specifically he brings his good standing with his peer group. To maintain that standing, and peers means a society of equals, you must perform in that range of tolerable behavior which the norm defines as acceptable. The potency of this for the child with his gang or the adult with his social group is not to be scoffed at nor denied by disparaging references to fallacies in "other-directness" or conformity. We all have our reference groups and even though one may be different from another and the other's group does not seem so important, one should not be misled. It is there and it is important. Without elaborating, one's family--parents, siblings, spouses, etc.--provide for most learners an important reference group, and for our argument here, a source of anxiety if one does not attain to the degree the group defines as adequate.

Phrased more positively, confidence spirals into permitting one to try the unusual, the novel or the difficult. It gives a clarity to one's action and a flair to one's performance. It has a self-fulfilling quality about itself. These factors lead to success and to increments in confidence.

Insert Figure 7.3 about here



Stressful stimuli
Emotional state: discomfort
Skill components facilitated, e.g., reaction time
Skill components inhibited, e.g., steadiness and precision
Cognitions and responses to eliminate stress
Choice behavior of individual
Somatic arousal
Final task Performance

Figure 7.2 Consequences of stress upon psychomotor performance (after Deese, 1962).

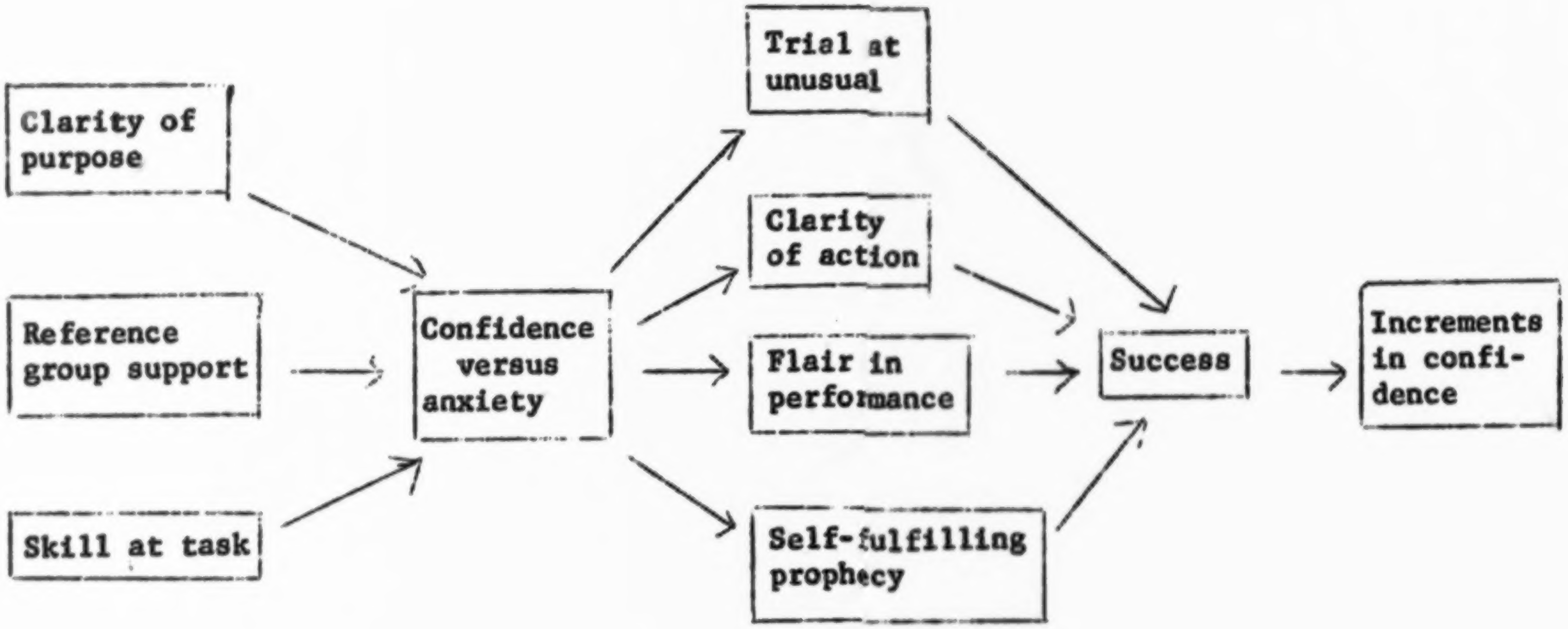

Clarity of purpose
Reference group support
Skill at task
Confidence versus anxiety
Trial at unusual
Clarity of action
Flair in performance
Self-fulfilling prophecy
Success
Increments in confidence

Figure 7.3 Antecedents and consequences of "confidence" in teaching.

Emotional blocks in learning and the sympathetic instructor

The teacher-pupil relationship literature is cluttered with emotional appeals to the need for warmth and pupil centeredness. The essence of this, as we look at the psychomotor phenomenon, is that failure and unsuccessful trials are going to occur. The child misses the ball with the bat and strikes out or a ball is hit and he drops it in the field. He does not need someone to tell him he erred or to harangue him for erring. All that is very clear. In our judgment, what he needs is someone to be there, to support him and to localize the issue to that time and place and that particular skill and episode. The key issue reflects the demand that the failure and lack of success does not generalize to the total activity and precipitate the child's quitting, or engaging in any one of a variety of defense mechanisms, e.g., "She's a lousy teacher," or "She yells at us," or "Who cares?" It is in this sense, the pervasiveness of anxiety, fear and negative emotions, that the principle of warmth and supportiveness becomes very apparent. We, as accepting observers outside the authority structure of the program, found ourselves playing a major and unanticipated role in the lives of the apprentices. The cooperating teachers, supervisors, and principals played similar roles in varying degrees.

Elements of Psychomotor Instruction

The kinds of variables needing consideration in psychomotor skill development are quite varied. Once again we select a few illustrative examples from our experience and the research literature to indicate the directions we are taken by the analogy.

Clock hours: gross amount of experience

Time is an unusual psychological variable. Often one disparages the idea with comments such as, "It's not the amount of time which is critical but the way one spends it." Gross amount of experience occurred to us as we observed our apprentices. The field notes contain this observation.

> In this regard also there is a major difference in our program and the City Teachers College program. The kids at City spend four full days per week in the classroom, while our students spend the equivalent of five full half-days. The clock hours variable seems to be a significant and underdiscussed item. (9/22)

Throughout the psychomotor and skill literature the imperative of amount of practice time occurs. While ideas may flash as insights and be apprehended in an instant, the development and coordination of complex skills--scuba diving, piano playing, tennis, handwriting, and so forth--takes many trials over long periods of time. Again, insofar as teaching is an art or skill, practicum clock hours will be a significant variable.

Time to play in the milieu

We have long been impressed with Margaret Mead's observation that all Manu children learn to swim with little tuition. In our analogical mode we think that this fits the general point of "time to play in the milieu." When one learns a skill such as scuba diving, one learns to wear a face mask. The face mask involves a number of related acts: putting it on quickly and securely, finding it underwater and putting it on ten feet below the surface, "clearing it," i.e., removing the water between it and your face while submerged, using the mask in conjunction with a snorkel, and so forth. If one moves too rapidly in instruction, the learner does not have the time to "get the feel" of the task. By this we mean that the new equipment, the task itself, and one's relation to it involves a whole series of perceptual, emotional, and motoric responses that one has to pattern. For instance, if one has not ever used a mask before, the inability to get air through the nostrils is an odd, if not terrorizing, experience. To move immediately to diving for the mask or clearing the mask creates a number of additional problems. The tactic of providing time for the student to play with the equipment, to practice informally the idiosyncratic aspects of the learning in his own individual manner, seems most significant.

The time in our observation of the apprenticeship was heavily scheduled and routinized. The movement or pace through the two weeks was rapid. The apprentices did not seem to have "time to play in the milieu," to get the feel of the task.

Free practice

In a small group session, three of us tried the doffing and donning procedures in scuba in an untutored situation. The free practice allowed us to move at our own pace and on the special aspects of the problem as we saw it. In this sense, free practice, if one assumes motivation, allows for almost complete individualization of effort. Because fear was prominent and skill was less than average, we simplified the problem in several ways. First, we worked only with the best equipment, the single-hose regulator. In this instance the third person was the observer and had a two-hose regulator. When his turn came he rotated with one of the others. Second, we dived in much shallower water, six feet, during the initial trials. Third, we simplified through keeping the mask on throughout. Earlier we had determined that the removal of the mask and the breathing with scuba but without the mask was a seriously more difficult skill. In addition, we were able to take a number of trials and partial trials on parts of the total operation. The principle outcomes were strong feelings of success and also strong feelings of "fun." Each of the threesome enjoyed this session more than any other up to that point. The handling of the problems of fear and anxiety occurred according to the best principles of social support and self-control of events (Jersild and others).

This general point involves another larger issue of the relative amounts of direct tuition, guided practice, and free practice in learning a motor skill. Its application to our apprentices seems self-evident at this point.

Parallel play, interaction, and sources of cues

Some years ago, Mildred Parten (1932) distinguished among kinds of play activities of preschool children. Her categories seem very relevant for classifying games and skills in terms of the interaction demanded. For instance, many motor skills can be utilized independently of other individuals (playing the piano). Others seem comparable to parallel play--a game of golf in which a foursome plays together but the interaction is social. Also, there arise elements of competitive play, tennis or handball, in which one's skilled behavior is contingent upon anothers. One can envision cooperative interaction among team members (bobsledding) competing against the physical environment. And finally cooperative units in competition with other cooperative units (baseball).

In psychomotor skills that involve interaction, especially contests, one must ultimately obtain cues from the significant others rather than from internal sources alone or from outside sources, crutches, such as a teacher's manual. In late November, Miss Frank was still dependent on such a crutch.

> 10:45 Miss Frank takes the "Cardinals" for reading. Passes out readiness books to the ten kids on the left.
>
> She reviews briefly "m" sound which they "talked about yesterday" and today the "d" sound as in dog.
>
> Miss Frank uses the manual and still needs to prompt herself. This promotes a jerkiness rather than a flow to the apprenticeship. Does "door" begin with the same sound as desk, doughnut, etc. As Miss Frank reads from her book she misses the cues from the kids who raise their hands, etc. The cooperating teacher can't stay out. She asks, "Don't they play dominoes anymore?" Arrangement of the kids, 8 in first row and 2 in second of semi-circle seems awkward.
>
> (OBS: The awkward concept is a good one for the analysis of teaching as a skilled performance. See Bartlett on Thinking, also psychomotor literature. This could well be a major thesis. Important for training. Weave the implications and the research literature into this phase. Hook conceptually to the decision making idea.)
>
> Miss Frank continues to prompt "d" words.

Later as Miss Frank worked with the "Brownies" an elaboration of the problem of one source arose.

> 11:10 Miss Frank has them read in the pre-primers. She's reviewing and reading intertwined. Miss Frank reads what they'll find out on page 36. She continues to have the mixed source of cues: kids, text, teachers' manual, and an occasional look to the cooperating teacher. (11/22)

Presumably specific direction and tuition by the cooperating teacher or supervisor and preparation on the apprentice's part could move her beyond this point into more productive interchange. Also, it is easy to perceive the impact of a highly directive or punitive cooperating teacher who interrupts--along the way--and, in effect, demands that she be treated as a source of direction. Our apprentices experienced that several times, as we noted elsewhere.

Practice under increasing demands

Complex motor skills, especially in games involving interaction, tennis and ping-pong versus swimming or golf, demand that one's behavior be contingent on another. To develop a high degree of skill one must gradually compete in the company of increasingly better opponents.[1] As an opponent presents his idiosyncratic style one has an opportunity to recombine his skills into new patterns or to develop a sharpness in the individual skills to a higher level. Presumably such an environment can be created in teaching, through simulation, micro-teaching and carefully defined "live" practice. However, at this point the nature of "good" or "easy" classes has not been carefully defined.[2] Most certainly, our apprentices did not have a graded sequence of experiences in this regard. They took what came, based upon criteria other than level of difficulty or increasing demands in the situation.

Demonstration

One of the accepted principles of psychomotor teaching is demonstration. The skill to be acquired is showed to the learner who attempts to imitate the sequence. Our data are limited on the degree to which the cooperating teacher specifically demonstrated techniques rather than "taught the children as usual." The typical procedure seemed to be the latter. Also, as we have reported elsewhere, considerable variation occurred in the frequency and quality of the discussions between the apprentice and the cooperating teacher. As we have also indicated elsewhere, the supervisors from City Teachers College were so busy as to preclude intensive contact. To our knowledge, they did no demonstration teaching. The potentiality of TV recording of performance, demonstration, and careful supervision arose during an extended lesson of Mr. Jennings.

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[1] A somewhat similar point in another context has been made by Lortie (1966).

[2] See, for instance, Smith and Hudgins (1965) on the Correlates of Classroom Functioning.

11:07 Mr. Jennings and I come in after recess. He has the 7th grade class for the whole day today; no school on Thursday. As he comes in he illustrates Kounin's lack of "with-it-ness" in that he's not sure where some of the girls are, "Monitors," and so forth.

As we talked in the hall with the teacher across the hall on the 3rd floor, she was lamenting the progress of the day--preparation for tomorrow's open house, letters to parents, etc.

11:10 The room is very quiet as kids do spelling and other seatwork. Mr. Jennings asks them to "remove everything from their desk." Kids in front seats get "Parades" from cabinets.

(Obs.: This storage of readers is an interesting phenomenon. Apparently to keep kids from reading ahead and "spoiling" the lessons. More long-term goals of interest in reading, etc. are less often reached (?).)

Mr. Jennings has children copy about 25 vocabulary words into their homework notebooks. One child begins hiccoughing. Mr. Jennings moves about. Stops to talk with various children. Finally over to hiccougher. "Would you like a drink of water?" Out she goes.

(Obs.: He seems nervous and ill at ease. Taps his fingers, has a strained look on his face, seems unsure.)

11:18 My watch is five minutes faster than classroom clock. Mr. Jennings begins questioning after writing the names of Washington, Jefferson and Franklin on the board. Asks class what they know about each. Questions tend to move toward specifics. Mr. Jennings seems to have little additional information to add. This leads into a story. "A new nation." Asks how people felt. One boy "Topsy turvy." Mr. Jennings says, "good," and moves on. Asks them, "How would you feel?" Someone says "Nervous," another "Scared," etc. He can't seem to generate further ideas and continuity in the discussion.

(Obs.: Beautiful opportunity here to record TV and audio, then move in with a "master teacher" who would do the same lesson. Several other apprentices,also their discussion, further attempts, etc.)

Has the kids read--7 pages--"(too much) to see how Jefferson felt." He moves about quelling incipient brush fires as one kid fishing for something in his book and paper holder.

11:33 Kids continue to read. The story is a fascinating (to me) account by Sonia Daugherty of Jefferson's role in writing the Declaration of Independence. It contains a number of quotable and debatable statements --could hang together or separately. John Hancock, etc.; humor in Franklin's story of the matter who put up his sign and vivid concrete detail--flies buzzing about in the heat.

11:37 Kids continue reading. All are absorbed. Mr. Jennings walks about.

(Obs.: Picking an area such as literature and composition would seem to have some unique possibilities as leads into creativity, skills, concepts, information, etc. The materials--as in this story--vary tremendously in quality.)

11:42 "Close books. What are feelings of T. Jefferson and wife?" Kind of worried. Feeling of tension? Where did Jefferson go to in Philadelphia?
Tavern.
What were they doing?
Talking over independence by members of Congress.
What were feelings, independence?
Linda says independence.
All agree.
Some were undecided.
Right, Mr. Jennings says.

(Obs.: The questions continue fairly specifically. Mr. Jennings' usual reaction is "right" or to ask another. He doesn't extend or give additional information. Can repertories of information be increased significantly? Can successful TV interview be recorded and content analyzed for "flow of interview" which could become a criterion for flow of classroom.)

Read a section and talk about Jefferson's role.

Let's read some of quotes and see Jefferson's point. Calls on one boy to read. He does. He asks for a "translation." Gets brief response and moves on.

Mr. Jennings stands at desk as he asks questions.
Does not use the blackboard.

(Obs.: Difficult to see the conceptualization he's shooting for. Might well outline these on the board.) Accents last quote. Kids have some trouble with vocabulary "declaration," institute, etc.

Makes points of pledge of lives, fortune, and honor. (Obs.: Conversation doesn't open up and flower.)

Moves on to "what kind of a day?" Hot.
Was Jefferson worried?
Yes.
How do you know?
Several have difficulty. One boy cites Franklin's comments. Mr. Jennings, rather than picking up on story, accents what was happening. Gets a reply.

What about John Bull? (Obs.: No transition.) Adds information on George III, King. Goes on and asks for further meaning. One boy comes through well.

(Obs.: Would help to have a copy of Declaration to show disproportionate size. No comment on later use and cliche.)

11:57 Move on to reading.

(Obs.: No attempt to link to contemporary scene and revolutions around the world and in the country.)

All but a couple of the kids follow along in the oral reading.

(Obs.: Accents the need for analysis of "interesting material." The story has it in terms of pupil involvement. What are the stimulus conditions?)

The kids have a frightful problem with the vocabulary. (Obs.: Nature and style of work or vocabulary and development of concepts and interests? Major emphasis on words, and their beauty and subtlety.)

Kids stand as they read.

12:05 (My time. Class time is 11:55) Several boys leave for patrol duty. Reading continues. Vocabulary problems continue: asset, tyranny, arouse, inadequate.

(Obs.: As the kids read on, about 1/3 of them seem to have the southeast Missouri dialect.)

12:08 Just before the bell. He stops story and has books collected. Story ends in the unnatural half-finished fashion.

(Obs.: This would be an interesting item to check against plans. Is it a deviation? What way do you pick up in the future, etc.?)

Has kids get coats--girls then boys, line up and then out.

Relationship of Verbal Instruction

The crux of the verbal instruction, especially lectures, in psychomotor learning lies, in part, in the relevance and sophistication of the verbal materials. Traditionally, the content lies either within the realm of common sense,and hence needs no formal elaboration,or it is extremely technical and not related to the usual practice and exercise of the skill. Within our illustration of scuba diving much of the information on safety, physiology, and equipment borders on common sense. The issue complicates itself in the timing of technical presentations. To a sophisticated performer, additional knowledge puts subtle nuances into his performance. To the neophyte who is making quite gross distinctions and discriminations such knowledge appears unrelated and not useful. In teacher training the comment frequently is, "It's all theoretical." A correlated problem concerns the amount of knowledge available to the instructor. Often the knowledge demanded is the application of extremely complex physiological and physical principles. If this knowledge is not available then one must refer to the authority of "the book" or "the expert." Serious complications occur when other experts, books, or viewpoints are offered and the teacher has no basis to rationally arbitrate the differences.

Knowledge of results: intrinsic clarity

Psychomotor learning theorists such as Irion (1966) comment:

> Whatever the confusions and misinterpretations may be in the data or in the theory, there can be small doubt that knowledge of results is the single most important variable governing the acquisition of skillful habits. (p. 34)

Without question, our apprentices received feedback of multiple kinds. Each two week trial produced an assessment of overall successes, recurring problems, and areas of endeavor needing modification. The children, particularly through their attentiveness and enthusiasm,rewarded the apprentices and through their indifference, lack of compliance, or direct refusal of requests punished the apprentices. The cooperating teachers varied in their subtlety, thoroughness, and care in telling, explaining and showing, inadvertently in some instances, the apprentices the consequences of their behavior with the children. In the most serious instances where survival in the classroom was in question the feedback of information relevant to changing teaching behaviors seemed limited in amount.

The Individual and Psychomotor Learning

To this point teaching styles and methods are only grossly conceived and identified, e.g., lecture, recitational, discussion methods and teacher-centered or pupil-centered styles. Similarly, methods and styles have received only the most tentative relationships with pupil performance and learning. If we follow our psychomotor analogy, a person with "high arm-hand steadiness" may become an excellent rifle marksman but only a mediocre football tackle where physical strength is a more important factor. A teacher with particular ability patterns may reach high proficiency levels with one method and consequently enhance some kinds of pupil learning to a very high degree. The other teacher may reach high proficiency in other methods or styles and be, consequently, highly effective in other areas of pupil accomplishment.

Residual individual differences

> It is a fairly common observation that people differ considerably in the skill they achieve in complex tasks, even after extensive training. Moreover, it is found that prolonged practice or experience with such tasks may actually increase individual differencss (p. 146).

Such is another principle stated by Fleishman (1962). The implications become complex in very rapid order, for while certain minimal standards may be reached by all learners, it is to be expected that concentrated practice and efforts will spread out the performance levels of teachers on specific subskills. The intercorrelations will not be high on these. If high proficiency were to be related to specific kinds of pupil learning then the increased spread of skill becomes quite critical.

Abilities relevant to proficiency levels

The investigators of psychomotor skills find that the ability factors predictive of performance at low levels of proficiency often are not the abilities relevant to performance at high levels of proficiency. Fleishman (1962) states it this way:

> In general, these studies indicated that the particular combinations of abilities contributing to performance on such tasks may change as practice continues and proficiency increases. It was also shown that these changes are progressive and systematic through the practice period until a point later in practice where they become stabilized. In other words, the combination of abilities contributing to individual differences later in training may be quite different from those contributing early in training. (p. 147)

This demands potentially a conceptualization of 1) the stages in becoming a teacher, 2) introduction of significant experiences to support apprentices with these varying combinations of skills and 3) as related to our earlier point of multiple skills in teaching some clear conception of patterns of abilities and the nature of high levels of proficiency.

In Summary: style and strategy, the ultimate acquisitions

Style

At very high levels of performance, psychomotor skills become highly individualized. Even the casual observer of batting styles notes the variations among professional ball players. At some point in time--undetermined at present--coaches stop molding players to a standard criterion and accent the player's own individuality. Bruner (1961) has generalized this from a range of performing arts to the practice of teaching.

> We have already noted in passing the intuitive confidence required of the poet and the literary critic in practicing their craft: the need to proceed in the absence of specific and agreed-upon criteria for the choice of an image, of the formulation of a critique. It is difficult for a teacher, a textbook, a demonstration film, to make explicit provision for the cultivation of courage in taste. (p. 67)

We present a final interpretation as Figure 7.4. The issue of style integrates into broader conceptions of the role of teacher within the life of the individual.

Insert Figure 7.4 about here

Strategy

To this point, most of our analysis of psychomotor skills has been at

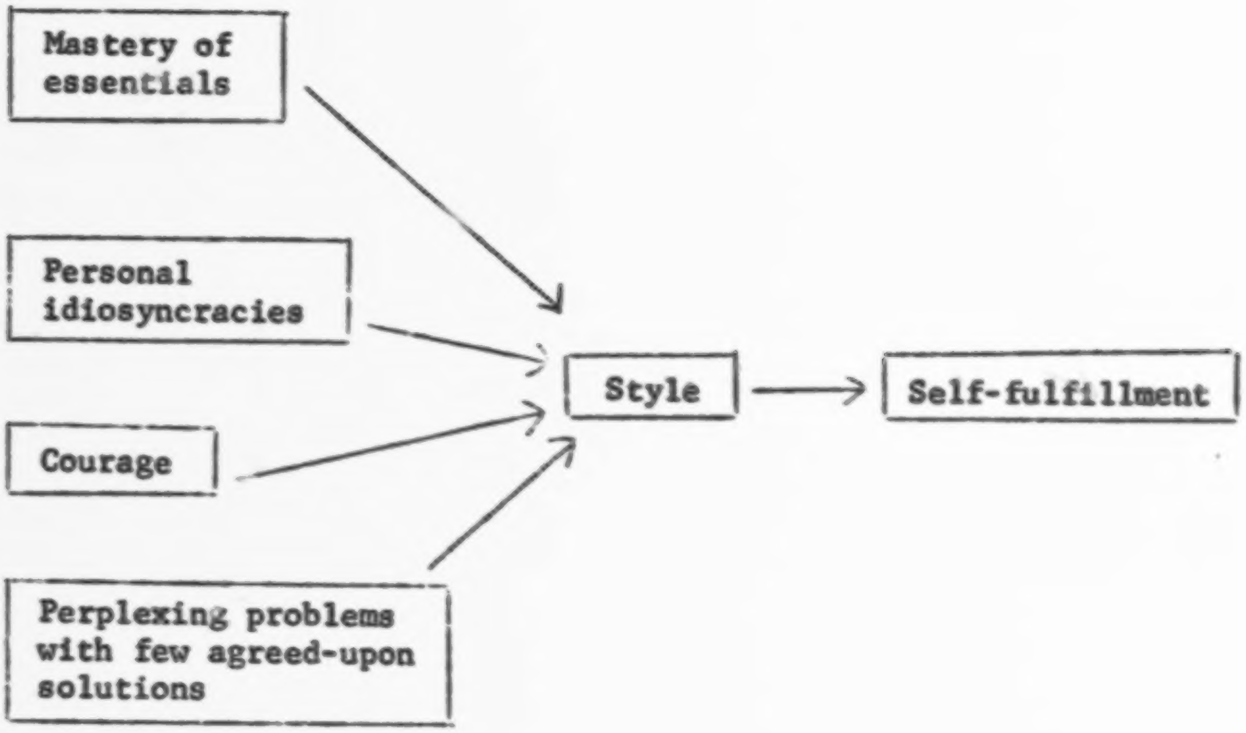
Mastery of essentials
Personal idiosyncracies
Courage
Perplexing problems with few agreed-upon solutions
Style
Self-fulfillment

Figure 7.4 Antecedents and Consequences of Style.

the motoric end of the continuum. However, skills, especially those implemented in a social context as games or contests, reach their culmination in strategies--conceptualizations and inquiry into the process. The strategy of play--often of coaching--returns us to the cognitive elements within a skill. The quarterback or coach who senses weaknesses and possibilities, who sees recurring patterns of defense and implements a "game plan" puts his intelligence to work in solving problems. It is at this point that our earlier model, teaching as inquiry, seems to blend most productively with our second model, the psychomotor analogy. Further development of this relationship seems of high priority.

Chapter Eight

Occupational Socialization: A Comparative Context

Introduction

The training of a teacher is a complex task. Most of this social and organizational complexity has already been noted in the analysis of the bulletin on the Apprentice Teaching Program, in the description of the first meetings of the apprentices, and in tracing the apprentices' careers through the semester. Specifying a particular kind of organizational pattern with certain expectations of things to be learned and behaviors to be engaged in raises the question of alternative patterns that might achieve the same or different objectives. It seems that what we are trying to say is: What is, or ought to be, the training process for teaching and toward what ends? Or, more broadly, what is the nature of teaching itself? Are different programs attempting to provide different kinds of teachers for the schools? As we proceeded with the data gathering, these issues and questions along with innumerable others continued to be raised.

In reviewing this early experience with the apprentice program:

> One of the major impressions was the notion that teaching is really a craft or a trade and that "apprenticeship" is a very relevant word. Another way of putting the issue is that teaching is considered a complex psychological, social and psycho-motor skill. To perform it correctly, as in many skills, there are a whole variety of very small, mundane things that one has to do. These need to be attended to and coordinated effectively if one is to teach correctly. (Obs.: 9/14)

The details of the craft need to be learned and one only becomes a finished master of the craft through extensive and detailed practice. The literature on student teaching and the apprenticeship contains many descriptions of the behaviors teachers need to learn to become aware of and to practice if they are to succeed.[1] In a recent bulletin of the Association for Student Teaching (Jensen and Jensen, 1964) the authors put the problem as follows:

> . . . there are certain underlying consistencies that all successful teachers must take into account and all successful teachers share this realization. . . . Student teaching is rather like practicing the piano. From the first, some sort of result will be heard by one and all. You have a large

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[1] See, for example, L. D. Crow and A. Crow, The Student Teacher in the Secondary School, (New York: David McKay Co., 1964), pp. 23-47 "The Effective Teacher."

> audience in the classroom and so you might as well attempt to make the music as melodious as possible. (pp. xi and xii.)

Further in our data, the Supervisor of Apprentices captured some of this flavor concerning the nature of the apprenticeship in introducing her colleague. She was described as possessing:

> "plenty of practical experience and that's important." At this stage in the project there appears to be a "pretty clear criterion statement of performance." In a sense, I would guess that Miss Perkins and the City school system have a pretty clear idea of what they consider to be good teaching. Whether this image relates significantly to any or all kinds of pupil learning is an open question. In some senses, however, from the teachers' point of view and the apprentices' point of view it is an irrelevant question. One of the questions that seems to me to be a good problem at this point is the characterization of this image of the "good teacher." (Obs.: 9/14)

Related to the image of the good teacher is the idea that there are multiple images held by the various persons involved in the apprenticeship program--principals, cooperating teachers, supervisors and the apprentices themselves. If we can argue from the findings of Becker, et al., Boys in White (1961), Orth, Social Structure and Learning Climate (1963), and Schein, "How to Break in the College Graduate" (1964), students in professional schools view the professional culture differently from the faculty and staff. For instance, the medical school analysis revealed:

> Students absorb medical culture in a selective fashion as it helps meet the problems posed by their school environment. . . .[therefore there is conflict between students and faculty. Students] cannot . . . exercise the full range of prerogatives associated with the physician's role. (Becker, et al., p. 192)

First-year students at the Harvard Business School view the goals of the program differently from their professors:

> If we could sum up the educational goals of as diverse a group as the Faculty at the Business School, we would say that they are trying to impart knowledge and skills to students in the hope that individuals will learn to 'think like responsible administrators.'
>
> This difference between the essential goal of students--to get through--and the fundamental goal of the Faculty--to teach students to think like responsible administrators--raises for us an important question about the climate for learning in the first year. (Orth, p. 209.)

Schein (1964) notes that the high turnover of recently hired graduates by business and industry is a consequence of differing perceptions of graduates and the companies on expectations for the first job and resulting inadequate induction strategies.

Differences in perceptions of the various personnel involved in the training of other craftsmen and professionals along with the variety of institutional variables pose a significant challenge if we are to describe and build a viable model of the training of apprentices. To paraphrase an expression of Orth: What kind of a cage are student teachers locked into? He cannot fight his battles "outside of the social system. He [is] caged into it and gradually [comes] to see that the range of tolerable behavior (number of alternatives) open to him as long as he [is] in the cage [is] relatively narrow and restricted." (p. 211) If the students of other fields are in such "cages" it seems profitable to examine them and, as a consequence, to see more clearly the problems of occupational socialization.

The Medical School Analogy

Howard Becker and his colleagues in the study of student culture in medical school recognize and analyze many of the problems that we have noted as being a part of teacher education. A careful examination of certain aspects of their study as it bears particularly upon the "theory-practice" question may give us further purchase upon the problems of training teachers. It may also help us to see with more clarity some of the deficiencies in teacher education programs.

Students in medical school have many of the same problems that students in teacher education programs have. The first two years involve primarily academic study. They are expected to develop an extensive knowledge in the "basic medical sciences--anatomy, physiology, and biochemistry" (p. 185). In the second year they are to apply this knowledge "to subjects which are much closer to the drama of medical practice. . .pathology. . .microbiology. . . pharmacology. . .and physical diagnosis. (Students, of course, have still other courses during their sophomore year: lecture courses in obstetrics, public health, biostatistics, and so on.)" (p. 185-6). During this period "the students' concern is their work: how much to study and to what end" (p. 93).

> This concern is expressed in a co-ordinated set of ideas and activities which we call the initial perspective. In line with the idealism of their long-range views of medicine, the initial perspective students bring to medical school embraces a high level of effort directed towards learning everything. (p. 93)

The effort to come to grips with their initial perspective leads to the conclusion that "you can't do it all" (p. 107). This provisional perspective along with continued interaction among the students leads to the final perspective: "'what the faculty wants us to know'" (p. 163). The above perspectives are developed in the freshman year and continue into the sophomore year.

> Our brief observations seemed to show that sophomores, insofar as they are faced with the same problems as freshmen, deal with them in similar ways. They study what they think the faculty wants them to know, assessing the faculty's desires just as they did earlier: by careful examination of current and old examinations, by careful analysis of hints dropped in class, and so on. They are somewhat more convinced as sophomores that what they are learning will be of use later on even if, just as before, they have no particular basis for making this judgment.
>
> In their work in physical diagnosis, however, the problems students face differ markedly from those of freshmen and the same solutions do not apply. . . .Suffice it to say that the new perspectives students begin developing in their work in physical diagnosis foreshadow those which become dominant in later years, when the work is largely clinical in character. (p. 187)

Following the first two years there is an altered emphasis from largely academic pursuits to what might be called an extended apprenticeship. These are the two clinical years to be followed usually by an internship, residency, and a full-fledged practice. Though the focus of the student training has been shifted from the academic to the clinical and it becomes more apparent that the students are beginning to act more like physicians and are acting in a medical setting,

> . . .they remain students, and the characteristics and limitations of the student role decisively shape the problems they face and their solutions of them. Working in the medical center, they become involved in medical culture and might be expected to begin to internalize it; but. . .while medical culture influences student culture (and indeed furnishes much of the material from which it is constructed), it operates only within the limits permitted by the students' immediate situation. (p. 191)

As students, they of necessity adopt shortened time perspectives which enable them to better cope with their immediate environment. They must focus upon specific aspects of their environment in order to meet their need for survival and "to learn what they will need to know in order to carry on medical practice successfully after graduation" and in order to do this "they must decide how hard they are going to work and on what things they will work hardest" (p. 192). Lawrence Frank (1948) takes note of the cruciality of a time perspective in relation to human behavior.

> Perhaps no area is more in need of exploration for its temporal implications than the field of human conduct and none offers more promise of fruitful reward for imaginative speculation, since all human conduct (and probably all organic behavior) are conditioned by the time perspectives of the individual and of his culture. (1948, p. 340)

However, the fact of a foreshortened time perspective in relation to student medical culture tends to place students at odds with the professors who have a longer range perspective with regard to medical education and the profession of medicine. The clinical years do cause a shift in the time perspectives of students in the direction of a longer range view. The concept of medical practice still gives them "no way to select from the mass of their experiences as apprentices what is most worthwhile, what should be remembered, and what deserves to have most effort given it" (p. 222). The difference in views of the faculty and students is contained in an extended quotation from Becker, et al.:

> There are, of course, many possible answers to the question of where students should put their major effort in order to prepare themselves for future practice. The faculty, though they disagree in many ways about the aims of medical education, would probably agree that the student in the clinical years should devote himself to mastering the rudiments of scientific medicine and the basic skills involved in getting along with patients. That is, the student should use the opportunities his clinical training gives him to learn how to make good observations. . .to reason his way to the best possible diagnosis. In working-up patients, the student should view each patient as an exercise in diagnostic reasoning and devote his effort to mastering this basic mode of scientific medical thought. He should try to master the skills of dealing with patients so that he will be able to work with the patient as a whole human organism instead of a collection of disease entities. If the student held such a viewpoint, he would know what to work on and where to put his effort.
>
> In fact, we find that students do not solve the problem of where to direct their effort in this way. Instead, making use of two ideas which we think must be strongly emphasized in medical culture and in the perspectives of practicing physicians, they create a collective perspective which tells them in what direction they should put forth effort. These two ideas are medical responsibility and clinical experience. . . . These two concepts. . . are presented forcefully and persuasively to the students, both by the faculty themselves and by certain structural features of medical school and hospital organization. In other words, even though the faculty, in their more pedagogical moments, argue for another view of the proper direction of student effort, in their day-to-day operations they express the ideas of responsibility and experience very forcefully. (p. 223)

The perspective, "medical responsibility," basically involves "responsibility for the patient's well-being" and its exercise "is seen as the basic and key action of the practicing physician" (p. 224). To the degree that students "work-up patients" and participate in the making of diagnoses related to the welfare of the patients they become increasingly aware of the exercise of medical responsibility and its intimate relationship with "clinical experience" which "gives the doctor the knowledge he needs to treat patients successfully, even though that knowledge has not yet been systematized and scientifically verified" (p. 231). These two views taken together provide the broad guidelines by which the student judges what he is to work at and provide the touchstones by which he asseses his personal worth as he is granted or denied responsibility in clinical experience.

Experience: core skills and perspectives

In contrast to Boys in White, our data suffer from a lack of information regarding the pre-clinical years. Becker and others' analysis suffers from an omission of the internship experience as part of medical training. The medical and teaching professions have differences in socialization styles such that the teaching apprenticeship, carried on under the supervision of the teachers college, combines "the work of the clinical years" with functions of the internship in the teaching hospital. Within the broader domains of clinical experience we find our apprentices behaving much like the pre-professionals in medicine.

> . . .he becomes much more of an apprentice, imitating full-fledged practitioners at their work and learning what he will need to know to be one of them by practicing it under their supervision. That he now becomes, in a sense, a functionary of the hospital is symbolized by the uniform he dons at the beginning of the third year: the white shirt, trousers, and jacket he will wear through the remainder of his undergraduate and postgraduate medical training. He now works in a hospital surrounded by hospital personnel; the work itself is in large part that demanded by hospital routine. (p. 194)

While our apprentices do not have uniforms, they no longer dress as college students but rather as adults--adults who teach in the public school.

The clinical experience provides the medical student with his "core professional skills" in the same sense that our apprentices learned theirs. The medical students "work-up" patients, that is they take medical histories, perform physical examinations, and make differential diagnoses. They are involved in the most mundane and routine of interactions with patients as persons with problems and in the most complicated processes of inquiry and reasoning as they make their diagnoses. They write up their notes and treatment plan on simple charts in accordance with standard hospital procedures. Similarly the students begin, in a limited and progressively involving way, to carry out therapeutic procedures--attending to minor injuries in the emergency room, assisting in operations and delivering babies. This sounds to us a good bit like student teachers working with the children, preparing and teaching lessons and learning the routines.

A variety of social psychological and organizational nuances arise in concrete form and become part of his perceptual and cognitive understanding, e.g., distinctions between private and clinic patients, between hospital and medical school authority, staff members and house staff, and so forth.

Major differences between medicine and education occur in the formal organization of the curriculum. Medical students rotate through special areas such as medicine, surgery, pediatrics, psychiatry, obstetrics and gynecology. Later they spend two months in a preceptorship--half in a rural practice and half in a state mental hospital. Our apprentices, as we have indicated, go "two by two" from grade level to grade level and also "10 x 2" in that they apprentice in two schools. The specialties--reading, language arts, social studies, etc.--are handled within the other units rather than the alternative manner. Insofar as elementary schools are organized more like "general practice" than "specialties" this may be more functional. The alternative possibilities--in the absence of data--are speculatively very interesting.[2]

However, it is the general orientation or perspective to which the authors of Boys in White keep returning. As one thinks through problems, e.g., diagnoses, the ultimate criterion becomes not the textbook, nor the research report, but one's clinical experience. He who has had the most experiences is the most knowledgeable.

> The group of five juniors I was spending my time with joined two other groups for an informal lecture-discussion by a staff member. He described a particular set of symptoms and then put his hand on John's shoulder and said, 'All right, John, tell us what kinds of things might produce this.' John said, 'Well, let's see--I think appendicitis could do it.' The staff member said, 'You think appendicitis, huh?' John said, 'Yes, sir.' The staff member said, 'Have you ever seen that happen?' John said, 'No, sir.' The staff member said, 'Well, neither have I. What else do you think might produce it?' This got a big laugh from the other students. John said, 'Well, I don't know, sir. I just know that in the book it mentioned that this was one of the things.' The staff member smiled and said, 'By faith alone ye shall not be saved.' This got an even bigger laugh. What he meant was that it was no good to take what the book said at face value--you'd better have seen it yourself. (pp. 232-233)

Similarly we found that our students who had taught a reading lesson, engaged in a geography discussion, disciplined a pupil, had a fourth grade all day by themselves, now "knew" about teaching. The concrete and specific experiences acquired with such heavy personal involvement had a potency not to be denied. In terms of developing a confident practicing professional, the consequences seemed to us to be quite positive. In terms of longer term career development, the potential for limited growth also seemed a possible consequence.

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[2] Perhaps the contrast is even more intriguing at the secondary level. To our knowledge no secondary education programs give practicum work in each area of "high school teaching" before permitting the student to specialize in mathematics, foreign language, English, etc. The possible consequences of such experience for "understanding across disciplines" seem an interesting speculation also.

Responsibility

Perhaps the most essential "outcome" or "acquisition" of the physician trainee is learning the full significance of medical responsibility. On occasion, the physician holds the patient's life in his hands. Becker, et al. illustrate this with an episode from their notes: in the presence of a group of medical students, a patient died of a perforated ulcer. The post-mortem involved serious discussion regarding the decision and alternatives--operate immediately with low blood pressure and volume and risk death during the operation or wait and administer transfusions. As one of the staff physicians commented:

> You see, a case like this, you're damned if you do and damned if you don't. . . . I'm not trying to attach any blame to anyone, nor am I trying to say it was anyone's fault. . .I think that you have to realize that it was a touchy situation either way. (p. 225)

In Becker and others' words, "The physician is most a physician when he exercises this responsibility." This emphasis, as in the illustration we cited above, comes through in concrete cases. It also is a major part of the teaching tactics of staff physicians who present cases to students, e.g., the emergency room gambit of "What would you do if. . .?" The gambit is used in settings which are highly involved emotionally and in which the sanctions of failing publicly, in front of ones peers, an informal examination. Similarly, the hospital hierarchy--3rd and 4th year medical students, interns, residents and staff physicians--accents who is allowed to do what and who is thereby responsible.

In our data, the responsibility theme received considerable accent, although not quite in the terms of Boys in White. The critical experience was "Thursday alone." In effect, each two-week episode culminated in total responsibility. The preceding days were targeted toward this. The apprentices had to know enough about the children and the cooperating teacher's program, had to have worked out a stance with the pupils which would permit survival, and had to integrate skills well enough to produce a visable product--teaching the children. As we have indicated, while this was an anxiety producing phenomenon to most of the apprentices it was also a positive opportunity to test oneself and to see the progress one was making on the road to becoming a teacher.[3]

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[3] Some of the more extended implications of responsibility in a psychology of teaching we raised in an earlier discussion (Smith & Geoffrey,1965, 1968) Some psychological theories, e.g., Skinnerian behaviorism seems to be incompatible with a "responsibility" assumption and hence difficult to extend into the analysis of teaching.

As we reconsider our problem in the light of a responsibility assumption, a number of comparative investigations are suggested. How do other "18 x 1" student teaching programs deal with this issue? What is the role of subject matter specialists vs. educationists vs. classroom teacher models? Is such learning possible through a "micro-teaching" format? Does team teaching as an induction procedure raise the responsibility question in significantly different ways? Do teaching internships pose this learning outcome in a more functional light?

Arthur Bolster, Jr., in a review of Knowles, The Teaching Hospital: Evaluation and Contemporary Issues, looks at the model for the clinical training of physicians and asks whether or not this model can be an effective one for the training of teachers. In his analysis he envisions a radical departure from present practices geared to develop professionals, to relate theory to practice, and to develop continuing modes of inquiry into curriculum and teaching as a fundamental aspect of the continuing work of the teacher. We cite only a paragraph to suggest some implications for the responsibility theme.

> Since the descriptions in The Teaching Hospital are so precise, reconstructing what this model would look like when applied to clinical training of educators in a secondary school is relatively simple. A small number of large comprehensive schools as close as possible geographically to a large school of education would take on an additional function as clinical training and research centers. Within each school, instead of the arrangements which now characterize our programs--the personalized apprenticeship (a part-time apprentice who teaches in the class of an experienced teacher) and the isolated internship (a full-time intern with his own classes under the more-or-less continual supervision of an experienced teacher)--we would have one or more teaching teams responsible for the instruction of the number of students presently taught in fifteen to twenty separate classes in a given subject area. The team would be made up of personnel varying in amounts and types of training experience. It would include apprentices (first-year teacher-trainees who are part-time in the school), interns, (first-year graduate students full-time in the school), resident supervisors (full-time experienced teachers in the local schools), and a senior clinical professor who would have a joint appointment in the school and university. The team would be collectively responsible for designing curriculum materials and teaching them to the children assigned to its oversight. Various responsibilities for this overall task would be sub-delegated to members of the team on the basis of complexity. The administration of tests, the supervision of study, the conducting of small-group resource investigations, for example, might be the responsibility of apprentices. On the other hand, the giving of large lectures, the demonstration of complex discussion procedures, and the planning of major curriculum revisions would typically be initiated by resident teachers and the clinical professors. Care-

> ful supervision of junior members would be vital not only to promote quality of performance but equally important to facilitate learning the increasingly complex aspects of teaching. Although supervision would be a major responsibility of the resident teachers and the senior clinician, interns could also be assigned supervisory responsibility over some of the activities of apprentices. In any case, the main thrust of supervision would be the analysis of teaching, and there would be occasions where this analysis would be performed by all members of the group on the teaching of the residents and the clinical professor. Consultation services from the university would be available for any need, but presumably would be most useful in curriculum development and supervision problems. Doctoral and post-doctoral research internships would be useful vehicles for this purpose. (pp. 175-176)

Conclusion

This chapter merely suggests the task yet to be accomplished. A variety of professions exist; all have socialization procedures. We have looked briefly at the areas of medicine, within it mostly at research whose tactics have paralleled our own. In these brief analyses we have been stimulated to reconsider our data in important ways. It is our hunch that extended analyses of practicum experiences in business, law, social work, clinical psychology, and theology, to mention a few, would form a theoretical and practical context in which to phrase the problems of teacher education. Such considerations might make future research in teacher training more productive. It might aid also in seeing clearly those programs in teacher education which are only partial analogies to practices in other professional areas. The assets and limitations in those stances might then be more easily subjected to alteration and change.

Finally, to insure that our analysis not be read as an issue prone to easy solution, we would make one concluding effort to broaden the basis of discussion.

Robert Merton (1957) in looking at "The Intellectual in Public Bureaucracy" makes an analysis of the conflict between the professors of economics and businessmen in the real world. Substituting the labels of personnel in the field of education his analysis proceeds as follows:

> Intellectuals' appraisals of the consequences of current [educational] practices and arrangements, which they do not regard as sacrosanct, invite forthright attacks by [teachers] who identify with these practices as technically efficient and morally right. This is one source of the charge levelled at the [college educator] that he lacks 'practicality.' He does not come to terms with 'the facts of the case,' these 'facts' being current practices. 'Theoretical [educationists]' who envisage alternative arrangements are

> pilloried as [impractical dreamers] in contrast to the [practitioners] who carry on the nation's [teaching]. . . .
>
> Closely allied to his challenge of [teacher] mores is the intellectual's use of historical and critical analysis. The concrete world of [teaching] affairs is ordinarily experienced by those most directly involved in it as a datum, a given, not analyzable into distinct elements which can, perhaps, be differently recombined. The intellectual's analysis is consequently perceived as 'unrealistic' and 'theoretical' (in the invidious sense). It is not surprising, then, that [teacher practitioners] have made an epithet of 'theory,' and reject 'professorial abstraction developed in the mists of intellectual rookeries.' (pp. 220-221).

Merton's analysis further suggests that businessmen (in our case practicing teachers and administrators) tend to take certain positions deriving from their own "cultural imperatives."

> 1. The [teacher or administrator] may question and impugn the integrity of the intellectual's mores.
>
> 2. He may seek to assimilate these mores to his own.
>
> 3. [He]may seek to devaluate the social personality of the intellectual. (p. 221)

A consequence of number three above may be especially peculiar to the field of education and teaching, inasmuch as both college professors and teachers engage in the act of teaching and both presumably think about teaching but within different institutional contexts. It may be following Merton's analysis, that:

> Having been emancipated from college, the [teacher or administrator] may act defensively if only because he has a vestige of guilt in not conforming to the disinterested values to which he was exposed as a student. He may seize the opportunity to assert his full emancipation by devaluating his one-time superordinate, thus effecting a 'reversal of roles.' This is not unlike a type of conflict which arises in the family as the child moves from the age of dependency and subordination to adulthood and independent achievements. (p. 221)

We might add at this point that the process may be speeded up by the process of student teaching in which the exigencies of the immediate short-range situation become most demanding and then during the time of first employment when the new teacher is attempting to adjust to an overwhelming schedule and to somehow adapt to the norms and pressures of the teachers and the institution in which he is employed. If he had a dream of what "ought to be" it is often quickly dissipated in the press of the situation. The "job" takes over and things continue as they were.

Chapter Nine

Functional Analysis: a Final Interpretation

Introduction

In a general sense, and as educationists not as professional sociologists, we have attempted a functional analysis of an organizational structure known as an apprentice teaching program. We have been persuaded that much discussion and evaluation of educational programs has been based upon too simple a paradigm--the pre- and post-measures of events forced into the model of experimental and control groups. This has been too limited in our judgment because the wealth of events making up the experimental treatment seldom is specified carefully and the dependent variables are construed too narrowly, frequently in terms of some available standardized test or measure which is only partially relevant. Merton (1957) makes very well a similar point:

> The distinction between manifest and latent functions serves further to direct the attention of the sociologist to precisely those realms of behavior, attitude and belief where he can most fruitfully apply his special skills. For what is his task if he confines himself to the study of manifest functions? He is then concerned very largely with determining whether a practice instituted for a particular purpose does, in fact, achieve this purpose. He will then inquire, for example, whether a new system of wage-payment achieves its avowed purpose of reducing labor turnover or of increasing output. He will ask whether a propaganda campaign has indeed gained its objective of increasing 'willingness to fight' or 'willingness to buy war bonds,' or 'tolerance toward other ethnic groups.' Now, these are important, and complex, types of inquiry. But, so long as sociologists confine themselves to the study of mainfest functions, their inquiry is set for them by practical men of affairs (whether a captain of industry, a trade union leader, or, conceivably, a Navaho chieftain, is for the moment immaterial), rather than by the theoretic problems which are at the core of the discipline. By dealing primarily with the realm of manifest functions, with the key problem of whether deliberately instituted practices or organizations succeed in achieving their objectives, the sociologist becomes converted into an industrious and skilled recorder of the altogether familiar pattern of behavior. The terms of appraisal are fixed and limited by the question put to him by the non-theoretic men of affairs, e.g., has the new wage-payment program achieved such-and-such purposes?
>
> But armed with the concept of latent function, the sociologist extends his inquiry in those very directions

> which promise most for the theoretic development of the discipline. He examines the familiar (or planned) social practice to ascertain the latent, and hence generally unrecognized, functions (as well, of course, as the manifest functions). He considers, for example, the consequences of the new wage plan for, say, the trade union in which the workers are organized or the consequences of a propaganda program, not only for increasing its avowed purpose of stirring up patriotic fervor, but also for making large numbers of people reluctant to speak their minds when they differ with official policies, *etc.* In short, it is suggested that the *distinctive* intellectual contributions of the sociologist are found primarily in the study of unintended consequences (among which are latent functions) of social practices, as well as in the study of anticipated consequences (among which are manifest functions). (pages 65-66)

A Starting Point

The application of concepts in functional analysis to gain an understanding of the process of student teaching required that we first examine ". . .the minimum set of concepts . . . [necessary] to carry through an adequate functional analysis . . . ." Secondly, it was necessary to utilize these concepts (guides to needed descriptive data) in an effort to effectively describe the particular structures of student teaching, the participants or actors in the student teaching situation, and their location within the social structure of student teaching. The following concepts "specifying points of observation" are taken from Merton (1957).

> 1) location of participants in the pattern within the social structure--differential participation;
> 2) consideration of alternative modes of behavior excluded by emphasis on the observed pattern . . . ;
> 3) the emotive and cognitive meanings attached by participants to the pattern;
> 4) a distinction between the motivations for participating in the pattern and the objective behavior involved in the pattern;
> 5) regularities of behavior not recognized by participants but which are nonetheless associated with the central pattern of behavior. (page 60)

A preliminary analysis of these concepts in relation to the kinds of phenomena that occur in student teaching gave some advance warning concerning behaviors to be observed and provided a preliminary functional model that could be revised and adapted as the research proceeded.

Location and participation of individuals

The student teaching situation posits conditions under which participants are assigned particular statuses and social interrelations are established. The normal relationships within the institution of the school are altered when the regular classroom teacher, who is legally responsible for the conduct of the class, undertakes an additional role, i.e., that of assuming a degree of responsibility in the "training" of a partially prepared teacher. Not infrequently this situation poses important problems of role expectations and role definitions that often result in role conflicts that can seriously jeopardize the desired outcomes of student teaching. A new set of superordinate-subordinate relations are introduced which set authority dimensions of interactions. Iannaccone and Button (1964) in their study of the Functions of Student Teaching suggested three types of interaction sets in which the role expectations, definitions and authority relations are shifted. "The observer set . . . . involves the student teacher as an observer. The cooperating teacher is the superordinate and functions as the classroom teacher with the pupils as subordinate learners and the student teacher as observer. . . . The dyad [set], cooperating teacher-student teacher, may be seen as coordinating the other two sets. . . . The dyad determines when these sets come into existence and what will be accomplished in them. The third interaction set involves the student teacher actually teaching." (p. 33) The interpersonal relations and behavior during student teaching may be largely explicable as a miniature social system in terms of the nature of the interaction sets in which the student teacher, cooperating teacher and pupils are involved.

In our preliminary observations during the spring before the major study we obtained clues concerning the nature of the interactions. The field notes contained two relevant observations.

> As we talked to the apprentice after her lesson, she commented about the procedures in the student teaching and how typically they observe one day and then begin teaching lessons one period, two periods, etc. There is a good bit of consistency in this throughout the district so far. When we quizzed her as to what were the procedures in terms of which classes and lessons they began with, she said that it depended on the cooperating teacher. As she explained this: typically she waits for the cooperating teacher to take the lead and often will ask if there is anything the cooperating teacher wants her to teach especially or sometimes, she said, the cooperating teacher will ask "what would you like to start with." In these instances she states a preference. One of the interesting things that struck me about this is that each new teacher they work with is like starting a whole new social system which must come to a very quick equilibria and which has many implicit and acknowledged formal patterns but not totally so. Gathering the expectations of each of the parties to the contract and the manner in which the bargaining proceeds should make a very interesting kind of analysis.

A second relevant observation from the notes was this:

Another interesting item came up concerning whether the student teacher was supposed to learn from the cooperating teacher or after the first day or two she was supposed to show the cooperating teacher that she had initiative and creativity and could move into her own view of things and her own style of teaching and special techniques. As this girl seemed to phrase it, at least in her eyes, the cooperating teachers expected her to be inventive and do things in her own way. They obviously must see the teachers perform a good bit, but at the same time they are not supposed to aid them in any tight or close sense.

In effect then, we saw highlighted in beautiful fashion sequences of social systems being developed, stabilized and then evaluated, at least intuitively, by the apprentices.

A question needed to be raised at this point as to whether the student teaching situation, in terms of the kinds of authority relations which exist, could be treated in terms of a typical type of organizational analysis since the student teacher is in the organization but not of the organization. Were the role expectancies significantly different from those of a "regular" teacher? Was the reward system significantly different for the student teacher? Were the reference group norms, as feedback mechanisms, more complex and confusing for the student teacher? Did the student teacher have the same range and order of choices as other employees in the organization? What kinds of constraints were placed upon the role of student teacher that are not placed upon the first year teacher? Was the student teaching situation dysfunctional from the point of view of the formal and/or informal organization of the school?

In looking at the above questions and problems it appeared that one of the significant ways of looking at the student teaching situation was in terms of the concepts of adult socialization and the occupational role of teaching. Iannaccone and Button (1964) utilized the conceptual framework of Arnold Van Gennep (Rites of Passage) as one of the ways of dimensionalizing the process of student teaching. There were three concepts related to his conceptual framework. These represent a sequence of separation, transition, and incorporation. They said, "The entries of the student teachers' logs suggest they perceived a characteristic pattern of movement within student teaching which they interpreted as evidence of separation and incorporation. . . . [However], student teaching itself is primarily transitional in nature." (p. 32) As indicated, we took issue with their point of view.

Exclusivity in student teaching

The student teaching situation presented problems of inclusiveness and exclusiveness. At this point it appeared necessary to speculate on what may have been excluded because of the particular pattern of student teaching adopted at City Teachers College.

In contrast to many programs the student teacher spent two weeks at each grade level K-8. The practice teaching was all day four days a week. This involved close contact for two weeks with each of nine teachers, with 270 to 360 pupils spanning nine levels of teaching. The teaching was done in two different schools. The effort was made to give the students experience with both middle and lower socio-economic groups of students and to thereby meet a range of problems presented to teachers in a large city school system. One wonders what kinds of experiences might have been excluded under this pattern. Some of these items appear to be the following: continuity over the semester with one group of students and a single cooperating teacher; long-range planning for pupil growth; development of extended units of work; learning to individualize instruction; developing uniqueness in teaching style; getting to know in depth the pupils and to understand their behavior; and trying out varied teaching behaviors. The fact that the above experiences might be excluded from the City Teachers College student teaching program raised serious questions of what was to be accomplished by the program. On the other hand, we might find that some of these items were fulfilled within other aspects of their teacher education program.

At great length we commented about our observations of the latent dimensions of the "2 x 2" program and the overt and covert "learnings" which occurred with our apprentices. While we tried to make comparative and alternative analyses, e.g., especially our consideration of Iannaccone and Button (1964), Sarason et al. (1962) and Becker et al. (1961), we were stymied by the fact that alternative programs have not been described and analyzed in enough detail to make this as productive as one would hope. Future research should provide these opportunities.

Cognitive and/or affective significances

What meanings of cognitive and affective significance did the activities of student teaching have for the participants: student teachers, college supervisors, principals, cooperating teachers, pupils? At this point Merton moves from a "pure" sociological position and asks social psychological or psychological questions, and, in our view, this is as it should be. We hoped to "climb inside the psyches" of our apprentices and see the world through their eyes, from their vantage points. Consequently, we employed the nondirective "interview" technique at great length. We sat as they talked, as they emoted with excitement, pleasure, and pain, and as they thought productively and in terms of rationalizations. The images and the concepts of the experience as they engaged in the experience became pages and pages in our field notes.

In a lesser way, perhaps unfortunately, we spent less time with the significant others in the system. However we, and they, took time to talk, to pass the time of day, and to raise questions and comment about the apprentices and how they were progressing. As with all social interaction, this became elaborated and spilled over into topics salient for the participants and for the observers.

Methodologically, as we raised elsewhere, the multiple sources of data--observation of our apprentices as they taught, informal non-directive interviews about their teaching (both what we had observed and that we had not seen), observations of the apprentices talking with each other, their cooperating teachers and principals, and our own conversations with these relevant others--did much to clarify the affective and cognitive experiences of the program.

Motives and functions

The psychological and the sociological are distinguished further as Merton discriminates between motives and functions. In regard to the former, he asks for data on the "array of motives for conformity and deviation" and we would generalize this even more broadly into individual needs and purposes as they ramify throughout the apprentices' experiences in the system. In our data, the excitement of learning to teach, to becoming a teacher, appeared throughout. The anxieties and frustrations that interwove with the excitement added further dimensions and rounded our pictures of our apprentices as individual persons. These phenomena we distinguished from the covert dimensions of the process entailed in the "2 x 2" program, the day-to-day increase in effort demanded and responsibility given which culminated in the "all day Thursday" phenomenon. Among a variety of events, these social patterns had major consequences in developing short time perspectives, accenting "the lesson" as the unit of teaching and foreclosing more extended "units" of work in the various subjects. It also produced teachers who were aware of and initially experienced in directing instructional activities in all curricular areas and at all grade levels.

The unwitting regularities

Merging easily with our prior point is the field worker's maxim of a fifth set of events for the descriptive protocol:

> . . . regularities of behavior associated with the nominally central activity (although not part of the explicit culture pattern) should be included in the protocols of the field worker, since these unwitting regularities often provide basic clues to distinctive functions of the total pattern.
> (p. 60)

Such a guideline suggests what we have come to accent as the "novel setting." Field workers seem to respond more productively when they move into situations which have a fair degree of novelty, for extended experience tends to make one accept unwittingly the assumptions of the system, to not see the usual and expected as anything but as the logical and the appropriate. If one, as investigator, has been socialized through the system, one does not see each item or pattern of behavior as problematical and does not ask the critical questions--"Why are they doing that?", and "What should result from that?"

In this manner the recurring patterns or the "unwitting regularities" are focused upon, illuminated and become objects of theoretical importance. The specific limits of naiveté seem an important experimental problem for methodological research.

In conclusion

We started our project with functional analysis in the background. Our observations were guided by Merton and his "rules" or as he calls them "desiderata."[1] He concludes his discussion with an acknowledgment that they are incomplete but that:

> . . . they do provide a tentative step in the direction of specifying points of observation which facilitate subsequent functional analysis. They are intended to be somewhat more specific than the suggestions ordinarily found in general statements of procedure, such as those advising the observer to be sensitive to the 'context of situation.' (p. 60)

To us, the major point seems to be that social science theory is yet so uncodified and/or so limited in applicability to education that there is limited direction which the theorist can give the participant observer researcher. The focus on positions and roles, regularities in activities, and affective-cognitive meanings and motives of actors is a first step but only a very tentative one. The educational researcher, much less the educational practitioner, should come to the task of teacher education with coordinated theories of learning, teaching, and organizations. Armed with such integrated middle-range statements the particular phenomenon we studied would have been illuminated more brightly and the theories themselves could have been modified more significantly.

Lingering Issues

While we have accomplished our initial task, the careful description and analysis of an apprentice teaching program, we are left with the proverbial "more questions than we have answered." In part these have been left as specific hypotheses throughout our report. However, a number of the questions have much broader implications and often we had data only at the fringe rather than at the core of the issue. Often, too, the issues diverged too far from our special areas of competency. Finally, in some instances we had neither time, resources nor space to elaborate them with the care they require and of which they are worthy. Consequently, we raise them here as "lingering issues" and major problems in next steps in a programmatic research endeavor.

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[1] The reader should note that Homans (1950) has a complementary set of guidelines in Chapter One of The Human Group.

Phases in developing a professional teacher

In his monograph, The Professional Education of Teachers, Combs (1965) makes a telling comment as he criticizes the "competency" approach to developing a teacher education program. He states

> . . . it is a fallacy to assume that the method of the experts either can or should be taught directly to beginners. It is seldom that we can determine what should be done for the beginner by examining what the expert does well. (pp. 4-5)

In general, the implications of this specific point seem far reaching and underestimated in teacher education. Schaefer (1967) offers a critique in the consideration of the competencies approach in his comment regarding the "static affair" of teaching and suggests the inquiry model in the context of the long-range development of the professional teacher.

> If teaching is an essentially static affair, the various pedagogical skills required are best learned by apprenticeship under a master teacher. A particular preparing institution, if it wished to cater even further to the vocational motivations of its students, might also provide an orientation to the job through a historical or sociological look at the school as a social institution, a 'practical' review of human development and of learning principles, and a repertoire of techniques and procedures proved useful by experience.
>
> If, on the other hand, preservice teacher education is intended to provide a foundation for career-long development as an inquiring scholar-teacher, initial training must emphasize ways of knowing. There must be less concern for job information already discovered and far more interest in the strategies for acquiring new knowledge. Philosophy of education would include epistomology and an introduction to the philosophy of science. Studies in psychology might furnish a working knowledge of research methodology and of experimental design, observational categories for observing and recording the behavior of children, and an introduction to the complex problems of measurement and evaluation. Courses in educational sociology would develop analytical tools for understanding student sub-cultures and the characteristics of pupils in a particular school. Courses in methods of teaching would eschew talk about techniques and procedures--laboratory experience and apprenticeships would be relied upon to develop these skills--and would focus upon the

> critical analysis of teaching behavior and a beginning approach to the logic of pedagogical strategies. In short, teacher education must seek to prepare teachers not as complete and polished practitioners but as beginning professionals who possess the trained capacity and the attitudes requisite to lifelong learning. (pp. 69-70)

While we only observed the apprenticeship, our data would suggest that City Teachers College neither erred in Combs' sense nor followed the dictates of Schaefer. If a teaching career is spread over a time line and units struck off at the pre-practicum period, the apprenticeship, the first year of teaching, the probationary period and finally the long span of the professional career, it is possible to view the apprenticeship in a larger context. If we trace across this time line a half dozen categories of events important to teaching perhaps we can lay the groundwork for the richer analysis of teaching and especially a richer comparative analysis of apprenticeship programs. Our procedures will be these: a brief description of the categories, a commentary on City Teacher's program, and some brief observations of other portions. Our model is in Figure 9.1

Insert Figure 9.1 about here

First, the general liberal arts education is limited heavily to the first two years of work at City Teachers College. It is not carried out in the context of a liberal arts college or a university setting. We have no data on the usual indices of quality of such education--library size, percentage of staff with doctorates, staff research and publications. All of our apprentices were "locals," they grew up in and around Big City. This emphasis in the first few years drops off sharply at the time of the apprenticeship and presumably remains low through the probationary period. Training for higher degrees, general maturation, travel and experience should see it rise again and presumably level off during the long years of the professional career. One aspect of this, about which we gathered "an observation" might be called difficulties in inservice training. A lunch-time conversation clarified later parts of the long attempt of teachers to reach a more sophisticated level of performance.

> There was a bit of discussion about a science program in astronomy for seventh and eighth grade teachers. The man who taught it was from Aerospace Inc. and head of their Optics Department. Apparently the whole three hours was over the head of this particular teacher and from the comments that were made about his telling the Principal and he in turn calling the instructor, there were a number of other people who thought so also. In this there was a tremendous anti-intellectual flavor. It was of the order that this guy was way above us and impressed us but didn't

Legend for Figure 9.1

1. General Liberal Arts Education
2. Concrete perceptual images of teaching
3. Core interpersonal survival skills
    1. Classroom control
    2. Implementation of the activity structure
    3. Confidence
4. Idiosyncratic style of teaching
5. Analysis and conceptualization of teaching
6. Non-classroom roles in teaching

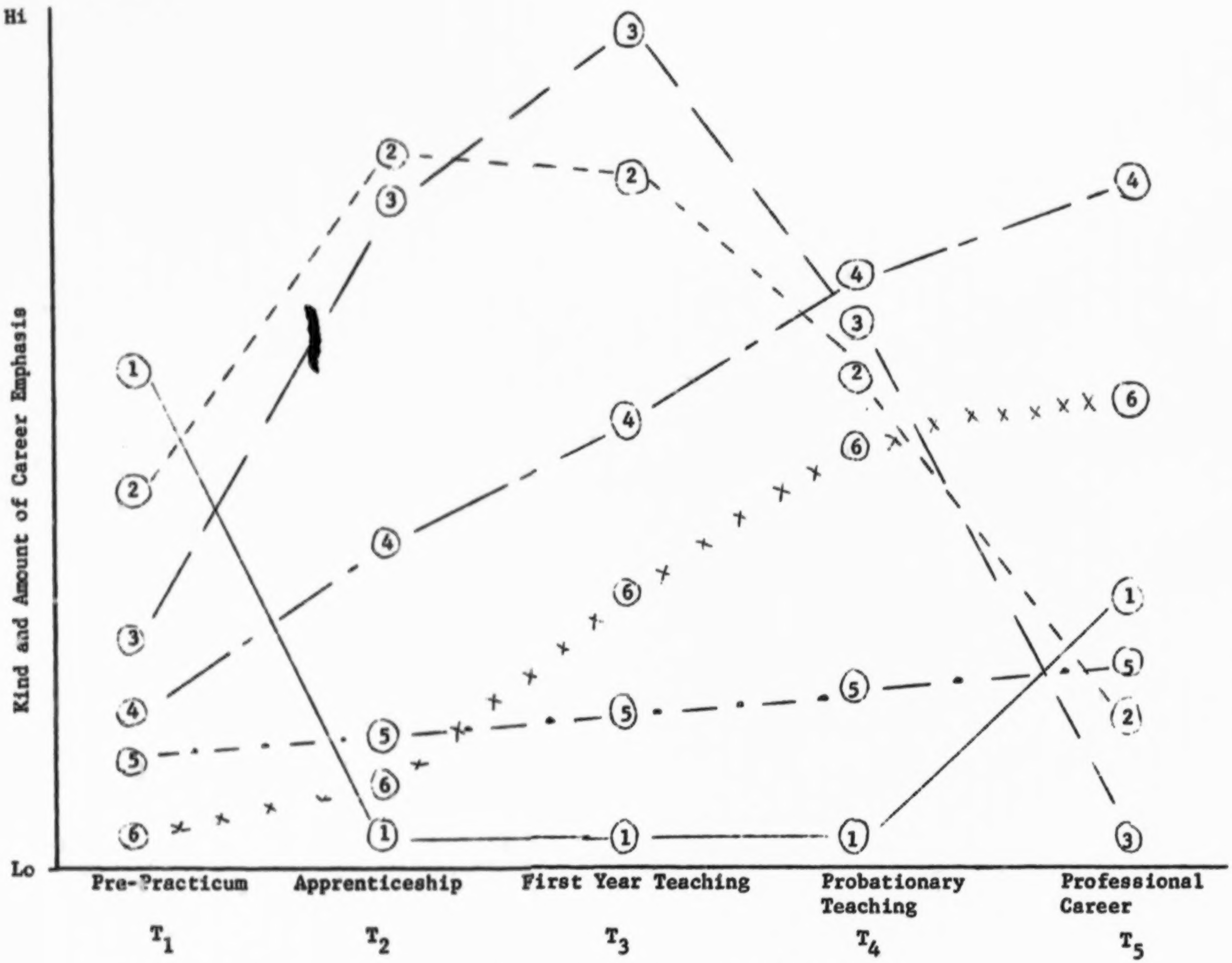

Figure 9.1 Estimate of phases in developing a professional teacher.

> help us at all. It raises, in part, some of the issues of inservice training and a very difficult job to gear the ideas and the materials to the teachers who then in turn can gear it to the pupils. The teacher who went saw it as pointless and comparable to the pointlessness of last year's new math inservice training. (10/7)

The varied possibilities in extending the knowledge and intellectual competencies of teachers are under development in local programs such as these and in federally financed institutes. The latent functions and dysfunctions seem ripe for analysis.

Secondly, we have made a strong point regarding the development of concrete perceptual images during the apprenticeship. Presumably this begins before, reaches a maximum in the practicum and the first year or two and drops off over time. Our apprentices kept reporting the mundane and the significant events which they had not been privy to before. The perceptions were of children and their families, teachers and classrooms, principals and school organizations. They were many and varied.

Thirdly, a broad category of "core interpersonal survival skills" seemed a major component of the apprenticeship; less important in the prior years, most important in the first year of teaching and hypothetically solved in the probationary period and of little importance in terms of new learning over the long career period. While we analyzed these in great detail earlier we would accent, illustratively, such items as classroom control (the authority structure), implementing the activity structure (initiating and maintaining the instructional program) and the development of confidence in playing the teaching role.

Fourthly, the idiosyncratic styles of teaching would be in gradual development from the first experiences in teaching and should continue to blossom long into one's career as new emphases in curriculum, in instructional processes and in the psychological and social foundations arise on the broader scene and as one builds them into or reformulates one's practices. In a fundamental sense the artistry of teaching should be a major focus and satisfaction in the profession of teaching. We obviously do not have direct data on this from our dozen apprentices. More indirectly, our cooperating teachers seemed quite varied in this regard, although our data are not good in that we did not observe them teach to any great extent.

Fifthly, the analysis and conceptualization of teaching was not accented by our apprentices. The scholar-teacher conception, for good or ill, seemed foreign to many of the people and settings in which our apprentices interacted. The schools seemed to have too many children, too many immediate problems, and too little time for reflection about teaching or about curricular innovations. Our apprentices were not inclined in this direction. They defined the task of the semester to get as much practical experience in teaching--presenting lessons--as possible so that they would be prepared for Thursday, and eventually for next year. The degree to which it is possible--or desirable--to alter the system is, at this point, a matter of speculation, debate and exhortation. Little data exist. Still less data are available when juxtaposed against the value statements.

Finally, the non-classroom roles in teaching--conferring with parents, working on curriculum committees, playing a role in school and educational organizations-are parts of the career which become important, presumably only as one is a practicing professional. Beyond some perceptions of this part of teaching our apprentices were not heavily involved.

Economic and racial transition

As we have said, one of the most exciting parts of a research project centers on the new problems which come to mind as one tries to solve the original issue under investigation. Participant observation has this quality to a very high degree. In this section we have suggested several interrelated problems which seem to be important parts of the complexity of teaching in an urban community. In general, they relate to the swift economic and racial change occurring in the urban schools. The December field notes capture one such observation.

> One of the major ideas which comes to mind is that the "transition school" should be one of the next major participant observation projects undertaken. This special problem which exists here, as the ground shifts under the Principal and the teachers, is most intriguing. As I may have indicated in the notes yesterday, the Principal sees some gross differences in the schools that have lived with the lower socio-economic problem for a long time and schools like his which have not. He is not ready to give up "without a fight." Similarly his teachers, and I think one of his primary teachers with whom I've not been involved, commented the other day that she refuses to use corporal punishment for there's no end to that. This seemed to be the intent of the Principal also who has developed a way of working with middle-class children over the last decade or two and who doesn't want to abandon what he sees as his ideals and his broad philosophy of education. In part the consequence seems to me to be a situation where the discipline problems occur and recur and raise so much difficulty that one has minimal time to teach. It becomes easier to see how the schools, with these non-voluntary kinds of kids, resort to this kind of control in an effort to solve the problem and solve it quickly and dramatically and as permanently as possible. Even though this tries a good bit of the initiative of the kids, the teachers then can spend their time on academic tasks, routine though some of them may be. There is a question in my mind as to how the choices run and whether they're between a punitive and non-punitive or whether there are options such as those that seem to exist broadly from our analysis of the Ghetto Project. Some of

> this seems quite variable. Those kids who are willing to go along and try for the main accomplishment are praised and lauded and those who do not wish to receive very dramatic and direct treatment. (12/10)

News about the changing structure of the Big City schools does not travel as rapidly and vertically as one might expect. Or perhaps it is just that the comparison level for alternatives varies dramatically.

> The Principal also told me that there was a long list of teachers wanting to transfer in to his school. He also said that he didn't think most of those people realized what was happening in the school in terms of its transition. They think of it as one of the older, elite schools that used to be almost all college-bound rather than what it is now. (12/10)

Very little adequate data exists on problems of administrative tactics in dealing with issues in racial and economic shift in schools and organizational tactics such as "bussing" children and teachers from one part of a city to another.

> At another point in our conversations we talked some of his prior school and the fact that at one point they had some six or possibly eight buses of transportee kids in the school and the bussed in teachers were out of keeping with the teachers he had in the building, I think essentially because they used very punitive techniques with the children. There apparently was a major show-down, or at least this is what I gathered from talking with the Principal, and he indicated that, and I don't know when in the year it was, but now was the time for decision and they could either all go and take transfers or else they could all stay and shift their procedures and if they didn't shift them he would turn in "unsatisfactory's" for all of them. My guess is that that story would be a fascinating one in and of itself. Apparently, from his remarks, there were some major shifts that took place and the year progressed much more happily and there were trading of classes, trading of demonstration teaching, etc. throughout the building. The Principal commented explicitly on the fact that the kids were academically way behind the local children. There seemed to be implicit comments about the teachers also in the sense of they're learning a good bit about other ways of handling children and other ways of teaching. In the Principal's words, he had some "crackerjack teachers" originally in his building. This could well be a significant aspect of the current situation in one of the schools for many of the teachers are a good bit older and near retirement and many of them don't have the resiliency, and that's another concept that we need to look at, to handle the new flood of problems. (12/10)

The breadth of the problems facing the urban school and facing the apprentice in training is exceedingly large. In Big City, communication among schools remains a large problem. The organizational and administrative mechanisms have not been worked out as yet, as the field notes indicate.

> To return for a moment to his school. My conversations with the Principal indicate that they have no contact with the sending school regarding the transportees. They have no notion as to how these kids have been treated there and what the building rules are. There is consequently more than just the "six hours of living in a different culture" which the Principal described, but further confusion concerning the differences in schools and home and community, which would seem to me to confound the problem seriously. He also mentioned his experiences at the Roosevelt where he had been Principal before and where he had worked for several months before the arrival of the first group of transportees. Apparently there was considerable hostility in that community. The school apparently had much less of that kind of preparation for their Principal was just retiring and hadn't wanted to open up a whole big battle.
>
> The Principal also told me that he at one time had had meetings with groups of students about building manners and building courtesy. He's in the process of reinstituting that in his school here. Apparently these meetings occur on Monday mornings. This strikes me as another beautiful illustration of the same kind of behavior that Geoffrey exhibited in his class where he tried to develop belief in normative systems with the children. (12/10)

As we talked with principals we came upon a number of kinds of problems which seemed to suggest limits within the total autonomy of the local elementary school.

> Another item that keeps running through my mind is the need for some kind of district-wide approach to the solution of some of the problems. The weekly staff meetings of the kind that exists in the Ghetto District, from our analysis of that project, suggest that the principals in the district of the apprentice's school would do well to have a similar kind of organization. The fact that the Principal is autonomous, and the principal told me that yesterday also, is a great boon in terms of freedom but it's also a tremendous handicap when the problems are broader than the individual school. If, as we've argued on other occasions, the social reality is the major part of the environment in which people work then some attention to that reality would seem to be imperative. In the present instance the Principal has only his observations out of his experience in one or two or maybe three schools and the occasional comments he gets from

> infrequent and irregular meetings with other Principals and the District Director. If something like indecisiveness, which we've talked about in teaching, is also critical in running a building and if indecisiveness can be lowered by having a firm, clear set of norms, the social reality, then you have the possible chain of reasoning that suggests the importance of the weekly staff meetings. Beyond the development of decisiveness and the commitment of people to the reality, there's also the possibility that the alternatives suggested would be quite concrete and quite viable and quite appropriate. Consequently, not only would the decisiveness be strengthened but also the options would be those of increased possibilities of reaching the goals. Naturally, this would depend a good bit upon the kinds of people who would make up the principal group and those with whom you could work and those with whom you couldn't. My guess is that it would take a long time to get welded together a unit such as exists in the Ghetto District. (12/10)

These data, and the preliminary interpretation we have made, are in a sense not a part of a more limited conception of "models of apprenticeship." For a functional analysis, the data are very critical though, not only because integration is an important social problem but because the social situation demands analysis in these terms. Situations are not as well handled in the social science literature as are positions in formal organizations. In the urban public schools the social and the economic transitions which are occurring are making some classrooms, some schools, and some staffs very different from what they have been. The teachers who find "the ground shifting from under themselves" face some important influences upon their lives late in their careers. Similarly teachers, such as our apprentices, who are just entering teaching have important kinds of problems when the realities they face in the classroom are different from the realities expressed at City Teachers College and the social realities of the belief and normative systems of the teaching staffs. In short, we have a number of latent items which are important elements in the total system.

Model III: the apprenticeship as role playing experience

On occasion, a particular episode will redintegrate old thoughts and old images of the observer, and, in this way, suggest theoretical positions requiring analysis and exploitation. Such seemed to be the case in early October.

> Growing out of this was a discussion of problems of teaching reading where she feels obligated, and she says that the other apprentices feel obligated, to go strictly by the book. She's run into some problems on this and then when she's gone by the book on occasion the kids haven't answered by the book and she feels stuck. Once again, to me this seems like the problems of learning to be a skilled artist in any field. You don't learn

> your lines, you don't learn to improvise, and you don't become responsive to outside cues in any social situation in the first time or two through the social situation. Sketching out in more detail the conception of teaching as role-playing and the development of simulation materials to facilitate that, some of the problems a graduate student and I had been working on in seminar a year or so ago, looks very good. The apprentice program might well be the vehicle for developing the concrete materials that will make the theoretical arguments move to a more sophisticated level. (10/7)

In effect, the possibilities of viewing teaching as role playing and the apprenticeship as a vehicle for experience in role playing gives us a further model, number III, to accompany the inquiry model and psychomotor analogy of chapters six and seven. We have had neither time nor resources to pursue this in detail; however, we suggest several points as leads to where we might go with it.

Role theory permits the inclusion of the situation into predictions of encumbent behavior.

> The role-playing aspect has some additional implications from the observations this morning. In my notes I have found this cooperating teacher to be a shrew, although the apprentice did not see her quite that way. When I talk to the cooperating teacher she is a very different kind of person. She was most cordial and polite to me and similarly, with the boys who came in with the projector she also was quite cordial and polite. (10/7)

If behavior is "situationally specific" as this observation implies, then one must know the perceptions of the teacher and the distinctions she makes among persons and among situations. We think this is the major point Combs (1965) is making with his "third force" psychology and that the theory of social roles is a more potent point of departure than the neo self-theory from which he derives most of his propositions and exhortations.

Further, if it is impossible to describe a single or several latent abilities in teaching which have some objective reality to them, then perhaps it is more fruitful to consider reality from a social viewpoint. Festinger (1950) comments:

> Social reality. Opinions, attitudes, and beliefs which people hold must have some basis upon which they rest for their validity. Let us, as a start, abstract from the many kinds of bases for the subjective validity of such opinions, attitudes, and beliefs one continuum along which they may be said to lie. This continuum we may call a scale of degree of physical reality. At one end of this continuum, namely, complete dependence upon physical reality, we might have an example such as this: A person looking at a surface might

think that the surface is fragile or he might think that the surface is unbreakable. He can very easily take a hammer, hit the surface, and quickly be convinced as to whether the opinion he holds is correct or incorrect. After he has broken the surface with a hammer, it will probably make little dent upon his opinion if another person should tell him that the surface is unbreakable. It would thus seem that where there is a high degree of dependence upon physical reality for the subjective validity of one's beliefs or opinions, the dependence upon other people for the confidence one has in these opinions or beliefs is very low.

At the other end of the continuum where the dependence upon physical reality is low or zero, we might have an example such as this: A person looking at the results of a national election feels that if the loser had won, things would be in some ways much better than they are. Upon what does the subjective validity of this belief depend? It depends to a large degree on whether or not other people share his opinion and feel the same way he does. If there are other people around him who believe the same thing, then his opinion is, to him, valid. If there are not others who believe the same thing, then his opinion is, in the same sense, not valid. Thus where the dependence upon physical reality is low, the dependence upon social reality is correspondingly high. An opinion, a belief, an attitude is 'correct,' 'valid,' and 'proper' to the extent that it is anchored in a group of people with similar beliefs, opinions, and attitudes.

This statement, however, cannot be generalized completely. It is clearly not necessary for the validity of someone's opinion that everyone else in the world think the way he does. It is only necessary that the members of that group to which he refers this opinion or attitude think the way he does. It is not necessary for a Ku Klux Klanner that some northern liberal agree with him in his attitude toward Negroes, but it is eminently necessary that there be other people who also are Ku Klux Klanners and who do agree with him. The person who does not agree with him is seen as different from him and not an adequate referent for his opinion. The problem of independently defining which groups are and which groups are not appropriate reference groups for a particular individual, and for a particular opinion or attitude, is a difficult one. It is to some extent inherently circular since an appropriate reference group tends to be a group which does share a person's opinions and attitudes, and people tend to locomote into such groups--and out of groups which do not agree with them.

From the preceding discussion it would seem that if a discrepancy in opinion, attitude, or belief exists among persons

> who are members of an appropriate reference group, forces to communicate will arise. It also follows that the less 'physical reality' there is to validate the opinion or belief, the greater will be the importance of the social referent, the group, and the greater will be the forces to communicate. (pp. 287-288)

Much of what we have been saying about teaching and what might be called "effective teaching" does not permit sharply drawn definitions in terms of physical reality. One method or technique may not be a whole lot better than another in terms of some objective standard such as differential pupil learning. In consequence, one falls back upon social criteria, the norms of the reference group, in this sense, experienced teachers and the administrative staff. Viewing teaching as a social role stresses the importance of social reality as an analytic concept in the apprenticeship program.

Urban teaching--if not teaching more generally--involves people in directive and leadership roles. Such a role has important interactive effects with the basic personality structure of the encumbent. We saw it this way in the case of one apprentice.

> I'm reminded very much of Miss Holt in the downtown study (Smith & Geoffrey, 1968) who had to learn this whole paraphernalia and which, in her own report, would have surprised her physician and other people who knew her well who couldn't imagine how such a nice lady could survive in such an environment. To be a teacher in this particular cooperating teacher's classroom and from what I see of the apprentice, to be a teacher as she is learning to be one, involves being highly directive, being threatening and punitive, and generally mobilizing people to go places they don't want to go. While this may be necessary for survival, and that one we've really got to test out with some alternative kinds of characters who can make it work in schools like this, it's not really the kind of life that I personally would want to lead. This suggests an array of problems of people who play the role more easily and naturally and who find satisfactions in it in contrast to those who don't play the role so well, who have a hard time learning it and who ultimately want to leave the situation as soon, and as quickly, as they can. (10/7)

Role theory would suggest a different framework than a personality-trait approach to teachers and teaching. It would suggest a possibility of the merger of a "competencies" approach with a "situational" approach and with the "life span" perspective we have been suggesting in this chapter.

An additional appropriate concept to note at this point is that of role-set. Abbott, citing Merton, has referred to it as the "complement of role relationships which persons have by virtue of occupying a particular social status." (Abbott, 1965) The "typical" role-set of the classroom teacher as we have indicated is vastly complicated by the presence of an apprentice in her classroom, by the visits of a college supervisor and by the observational and evaluational roles of the principal of the school. The degree to which the role incumbents perceive their dual roles to be incompatible (teacher--cooperating teacher, principal--principal observer and evaluator of apprentice, apprentice teacher--student) suggest the degree to which role conflict may occur and generate tensions within the system that result in either social disorganization of one or more of the systems and/or personal disorientation of one or more of the role incumbents. We sketch some of these possibilities in Figure 9.2.

Insert Figure 9.2 about here

Role transition has been more than implicit in much of our discussion. In fact, one of our predecessors, Iannaccone (1964), made a strong case for its use in understanding the practicum experience. If by role transition in beginning teachers we mean a shift from being and acting like a college student to being and acting like a teacher, we have observed and reported on one such planned and organized program engaged in that process. We think it important that alternative programs with similar objectives be described and conceptualized. The method of participant observation seems peculiarly appropriate for such organizational study. Among the salient issues in need of further investigation is an analysis of the totality of the role of teacher. Part of the role transition, if we read our data clearly, relates to certain basic personality issues in which exist crucial differences among apprentices. Part also lies in the kind of organizational milieu, the school, in which the apprentice practices his first steps. It is clear that these schools vary. The program, "2 x 2" or otherwise, must mediate between these large domains.

We have noted also the problem of "role reversal" that may occur as the student moves from a subordinate position as a student in the university or college into his role as a teacher in the public bureaucracy of the school. He is now not only in a superordinate position with regard to the pupils but may derive some additional satisfaction from the feeling that he is coming to grips with the problems of the real world, and that, after all, a great deal of the theory he received from the professors really doesn't work. However, it may be possible to conceive that much of teacher training is of a much more practical "nuts and bolts" variety and that the transition from college to teaching does not involve role reversal problems. There may be real continuity during the transition period between college and classroom. In fact, the more theoretical questions may not have been significantly raised. Then there would be no conflict for the apprentice on the theory-practice level.

We have used the words transition and role transition to speak of the period of time during which the student is placed in the classroom under the guidance of a cooperating teacher or teachers and a college supervisor. We have also spoken of the clinical years, prior to the internship, in the training of the medical student as a period of transition in which the medical

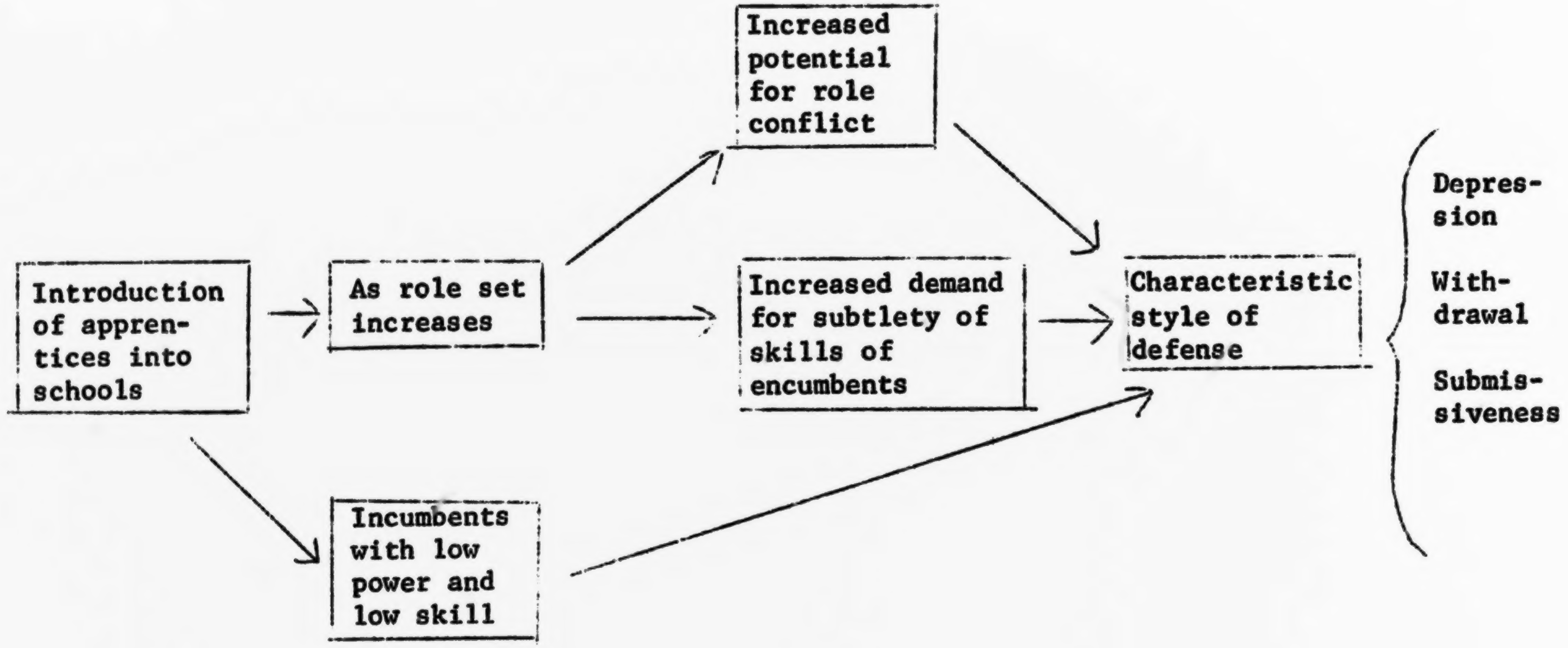
Introduction of apprentices into schools
As role set increases
Increased potential for role conflict
Increased demand for subtlety of skills of encumbents
Incumbents with low power and low skill
Characteristic style of defense
Depression
Withdrawal
Submissiveness

Figure 9.2 Introduction of apprentices in schools interpreted as an increase in role set.

student is gradually inducted into the physician's role without in fact being a physician. He increasingly becomes aware of key elements in his "role to be," namely, the concepts of "medical responsibility" and "clinical practice." But while he makes judgments, they only can be carried out when a practicing physician accepts responsibility and issues the necessary orders. In his clinical or apprenticeship role the student physician is only simulating his role and is not allowed to accept full and final responsibility for the welfare of the patient. It appears that there is an extended period during which his role continues to be redefined in an almost step by step way until finally he is allowed to accept the full responsibility toward which his training has been aimed.

In the training of teachers, the fact that the consequences of teaching do not involve life and death questions, allows us to immerse the prospective teacher, after relatively brief observation, in the total teaching act. The prospective teacher performs with and upon the pupils and after the act and the consequences that flow from that action (usually not fatal) we then engage in criticism and evaluation of what has taken place. In medicine the criticism and evaluation is before the fact (except when an autopsy is being performed) while in teaching it largely occurs after the fact.

As nearly as we can tell, Van Gennep's conception refers to the ceremonies accompanying life crises. A life crisis seems to be a major change in the status and position of an individual. As a consequence of this major change, the social equilibrium is jolted and it, too, changes. The ritual or ceremony is involved in the reestablishment of a new equilibrium based upon the changed situation. The individual is in a new social category, his behavior is supposed to be different, and others are to perceive him as different an respond to him in accord with the new category. Role transition, if we understand the term, would qualify as a change in an individual's social position and in some instances might involve a life crisis. Interestingly, at the level of analysis in which we have been working, the ritualistic or ceremonial aspects, as implied in the rites of passage conception, did not loom large in our data.

In summary, by focusing on teaching as role playing a different and important array of concepts is raised for viewing the apprenticeship as a means to developing this role. The introduction of such terms as roles, role content, role set, role encumbent, situationally specific behavior, social reality, role reversal and role transition suggest just a few points of departure which look significant. Full exploitation must await another time.

Conclusion

Our last chapter has included a few summary comments on our understanding of the way in which a functional analysis might proceed. Our methodology, participant observation, continues to enthrall us. A very important aspect of that excitement centers on the development of new problems. We called these "lingering issues" for they are problems that have been a part of our life space for some time, that intruded into our present analysis, that have not received the attention they deserve and that one day we will get to. For the moment, the longer career view or life span context for those analyzing instruction and the socialization of teachers into classrooms, schools and the profession seems most important. Many of the current arguments about teaching and teacher education seem to be bound up with assumptions which such a life span overview makes clear and vivid. The issues of racial and economic transition which are so much a part of the urban scene, and out of the perspective of the educational psychologist and the teacher trainer, must be brought into focus. While most of our comments have arisen in a long conversation with a single principal, our data contain many more references. The issues are of major magnitude. Finally, we raise issues of "role theory" as a further and important model for the analysis of teaching and the apprenticeship.

Appendix I

Notes on the Methodology of the Study

Introduction

As we faced the issue of coming to know well an aspect of a total organization, we appealed to participant observation, a methodology we had found exciting and productive in earlier work, which fitted our clinical backgrounds and which seemed especially appropriate for our descriptive and model building intentions. Essentially, we proposed to "follow" or "live with" a dozen student teachers. Each of us was responsible for getting to know four individuals.[1] Our dozen were not intended to be a representative sample in any fundamental sense. The supervisors at City Teachers College were asked to nominate individuals on these grounds: 1) some men and some women, 2) some Negroes and some whites, 3) a range in competence, however they chose to define ability, and 4) a geographical scattering in the schools of the community.

When one engages in participant observation, one tries to be in the situation as much as possible. Malinowski (1922), in discussing the "imponderabilia" of actual life, comments

> Living in the village with no other business but to follow native life, one sees the customs, ceremonies and transactions over and over again, one has examples of their beliefs as they are actually lived through, and the full body and blood of actual native life fills out soon the skeleton of abstract constructions. (p. 15)

While we do not wish to enter into a thorough discussion of the methodology here, we would urge you to consider these aspects of what a test maker might call the validity of his measures. We observed our apprentices teach a variety of lessons. We talked with them informally about their problems, plans, intentions, and practices. We listened to them talk with each other and with their cooperating teachers. We talked informally with the cooperating teachers, principals and supervisors. In most instances we got along very well. In some instances we were father-confessors who were out of the authority structure, who knew what was going on, who would listen, and who would empathize. The method has a potency which we are only now coming to appreciate; we think we obtained a valid picture of the apprenticeship.

Validity and sources of data

When one does not use well-established psychological tests, prescaled attitude measures, or quantified observational schedules for data collection, the usual canons of measurement--validity and reliability--are difficult to assess. Also, as one moves from verificational to model building the situation complicates itself one step further. While we have not solved these problems to our total satisfaction, several thoughts have left us at least a bit less anxious.

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[1] We were aided in this by Paul F. Kleine, who served as graduate assistant.

First, we have "been around" our apprentices frequently and at unschedules times. This kind of sampling is reminiscent of the major point made by child psychologists in the early days of "time sampling" in observational procedures. We think it is crucial to the conception of validity.

Second, we have appealed to multiple sources of data about common events. This includes direct observation of the apprentice as she teaches and works in the situation. We have talked at length with the apprentice about what we saw and other events we did not see. The apprentices kept a daily log, Figure A.1, of events that occurred to them. We talked with the principals and cooperating teachers. On rarer occasions we observed the apprentices talk with the cooperating teachers. On a number of occasions we participated in discussions among several apprentices where they told their peers about their classroom experiences.

As the data varied, from situation to situation and source to source, we were able to record the differences and speculate on the reasons.

Insert Figure A.1 about here

Third, one of the major elements in data collection was the non-evaluative stance we took, the real interest and empathy we had for each apprentice and his problems, and the fact we were independent of the authority structure which enveloped them intimately. An excerpt from the field notes illustrates this very well.

> It's now 9:50 and I've just come from a long and productive talk with Miss Frank. She raised a whole series of problems which require extensive comment. One of these centers on a role conflict problem and could well provide us with a vehicle for the analysis of this phenomenon. She's seeing things that she doesn't think ought to happen in the school, such as no free activity period in the Kindergarten and corporal punishment of the children, hitting them with rulers or paddles. Some of it becomes visible to her supervisor when she makes her lesson plans or when she conducts a class and the supervisor reads her out for this. At the same time she feels she can't tell the teacher how to run her business. Similarly, she is afraid to raise the issues of the corporal punishment with the teachers because if they

Apprentice Teaching Project S-342
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Washington University
Graduate Institute of Education

STUDENT TEACHERS FIELD NOTEBOOK

Name____ Date______________________

School______________________________________ Grade_____________________

Cooperating Teacher____

Your brief account may pertain to any phase of the Apprentice Teaching experience--curriculum, children, staff, community and so forth. Please record your notes daily.

1. The most important thing you learned.

2. The most interesting event of the day.

3. The most puzzling event of the day.

4. Other observations or comments.

Figure A.1 The form of the apprentice's daily log.

> know they shouldn't do it and she knows they shouldn't do it and yet it gets very complicated. While she hasn't formulated it clearly, she is sensitive to the fact that the teachers use the corporal punishment, a whack across the hands, or across the backside, partly to quiet individual kids and partly to scare them for the future, and partly to scare the other kids for the future. It is a public phenomenon in each instance which she doesn't like but which to me sounds like it's carrying out some of the ripple effect consequences. It serves the teachers' purposes very well. (10/7)

In short, we think we saw validly the phenomenon, our case study of an apprenticeship program in teaching. When we say in the lay language "that's the way it was," we have few doubts about our description. The selection of a conceptual model demands additional methodological considerations and we attend later to those.

The dozen apprentices

Early in our discussions of procedures we made the decision to work with 12 apprentices. Each of us, the two principle investigators and a research assistant, were to be responsible for four individuals. The dilemma we posed for ourselves was that of intensity of observation, which argued for one or two, and extensity of observation. As early as the first week in October we began to second guess the early decisions.

> Just for the record, methodologically, the following of the four teachers is a tremendously difficult issue. Between my broken schedule, the Jewish holidays, and the varying demands of the principals for being notified, the illness of the one apprentice, leaves everything in a kind of jumble. To move in on a regularly scheduled time and place destroys some of the spontaneity and potentially puts you in a position where they are playing to you for a special occasion. Finally, with the shifting of classes coming so frequently it's difficult to have any feel for the particular group of kids with whom the student teachers are working. This seems like a serious drawback. Some alteration could be made in this by spending more time in the classrooms. (10/7)

We would add that this questioning remained throughout the semester. An organization and its members can be viewed from several vantage points. Gains of one sort result in losses of another.

The nature of our field notes

In general, and as our extensive documentation in the body of the report reveals, we keep two kinds of records. The first of these we call, typically, field notes. These are the in situ notes of observations of classroom teaching. Typically we tried to capture as close as possible a record of who was saying what, who was doing what, and the time sequence of the process. Often we would insert interpretive comments into the record to facilitate the data analysis. Ultimately the notes were typed into multiple copies to be shared with each other and to be analyzed for relevant descriptions and analysis of the process of becoming a teacher.

The "field notes: summary observations and interpretations" were more extended comments dictated into a portable Stenorette after an observation, an interview, or discussion. As we tried to enter into the experience from the apprentice's viewpoint, his or her schemata, we found ourselves in long conversations and extended discussions. As fully as possible we captured these immediately afterward on our tapes. Similarly, informal interviews with principals, cooperating teachers, and relevant others found their way into our records. These were dated, as were the in situ field notes and a comprehensive record of the lives of our twelve apprentices was compiled. These have been quoted in detail in the body of the report to give the reader a feeling for the care of our observations, an appreciation of the context in which an interpretation was made, and some concrete perceptions of the drama and emotion involved in the socialization process.

Latent dimensions of participant observation

From time to time we speculated on the implications of participant observation.[2]

> Some wandering thoughts on methodology: A point which I don't think has been made in these notes or any of the methodological write-ups to any great extent is the critical importance of the "I don't know" stance that the observer must take. It would seem that the world is full of people who know the answers to particular problems and institute programs and procedures to solve those problems. If you take the position of "I don't know," or "show me," you are in a position of seeing the structure in process of an individual group or organization as it functions. A related and perhaps even more important issue goes back to Malinowski's early statement on Foreshadowed Problems. Essentially this involves posing the most knotty, troublesome, and unsolved problems that you or your students can think of and asking the data to speak to those problems. In effect, what do the data mean for this aspect or that aspect or another. A third problem which I think we probably talked about at some point concerns the beauty

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[2] An amplification of these has been published as "The microethnography of the classroom" (Smith, 1967).

> of data of this sort for the individual who is most interested in theorizing and having some concrete help or situations to analyze and to refer to as he goes about the task of structuring some kind of a conceptual map, model, or theory. (12/16)

Latent functions of "being around"

Field research poses continuing problems of entry, and, as we found, it also provides modes of solution.

> Before entering into a discussion of that it might be appropriate to comment that I ran into the principal of Kennedy School. He was very friendly and greeted me with a big Hello. He stopped his car as he came by and asked me if I'd be able to stop in and see him sometime after the holidays to talk about some research at his school. He prefaced his comments with "You're down here a lot" which seemed to imply that I might have some notion and realism about the nature of the problems and what might be done. As I asked him to give a little more detail he commented that he didn't think they were doing enough at the "classroom level" and he was concerned about it. That one looks like a real entree. Once again it raises a very interesting set of problems of having a school person initiate the request and make the first move. Methodologically this ensures cooperative response and full support. The tough problem is to be able to conceptualize the issue well enough to encompass his aims and my own aims. This might be an appropriate spot to begin thinking seriously about an experimental school in a slum neighborhood. It might also be the break that's needed to cut into the Ghetto District in much more dramatic fashion. Similarly, it could open up a variety of things in the Housing Project that might be done in conjunction with Pat's[3] work down there. It suggests some difficult problems in the sabbatical decision and also some possibilities for the Center for Field Studies. Methodologically one might comment that this is an unanticipated consequence of the "being around" phenomenon which is so characteristic of the field methodology. One additional point that ought to be tied in here concerns the possibility of the move toward experimental research especially around teacher interventions into the system. See the note regarding use of teachers who've been in the 524 classroom. (12/16)

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[3] The reference here is to a former colleague, Pat Keith, who was working then with the social welfare department connected with Project Housing.

The active grappling for themes

One of the most difficult methodological issues to describe carefully is the process by which one finds a general thesis or particular themes in a participant observer study. We have argued at length in Appendix II some of the ways in which we attack the field notes in the analysis period after the data have been collected. The struggles in situ are exceedingly important and frequently were recorded in the summary notes. On October 7, one of the investigators commented:

> I've been away from the Project for a week now and am trying to reorganize and reconstrue it. As I think about it from a brief glance at some of Miss Frank's notes and general discussions I have had with people like Carl Pitts, several ideas come to mind: first, the trial phenomenon and potential learning curve residing in the fact that each two weeks you begin all over again. The kids talk about it a bit in their notes and also in their conversations, about how they did things wrong and how they are now going to try something else. This still seems fabulously important. Second, I am struck by the effects of the different models. Third, this point interrelates with the second one in that the things that occur in the models are many of these very mundane sorts of truisms that people often know from common sense, yet they get formalized as part of the cognitive maps of the kids. Miss Frank, for instance, talked about telling the kids something good about them and their work and thus softening the blow for some of the more pointed and critical things that had to be said. Fourth, the animal has to behave. I don't think yesterday's day with Skinner really provoked my general reaction but it came from Miss Frank's notes, although it is difficult to tell. The problem concerns the kind of evidence to which the people appeal. Research data, evidence of .01 significance test and theoretically derived principles carry very little weight in contrast to the fact that the kids respond or they don't respond. In effect, what you do, directly or indirectly, has to make the kids responsive. In effect, the animal has to behave. Miss Frank's notes from the first of this week indicate on one occasion that this actually occurred and then "she knew" (those are very close to her words). Check the October 4th or 5th log. (10/7)

Summary

We have used a form of the participant observer methodology to study the socialization of a group of apprentices into the profession of teaching and into the organization of the Big City Public Schools. We observed and talked with a varied group of twelve men and women in their last year at City Teachers College. The program is an unusual practicum in that the apprentices are in the schools four full days for an entire semester and they move through the experience by spending two weeks in a classroom at each grade level, K-8. Our analysis has been guided by a concern for latent as well as manifest items, functions, and dysfunctions; and our report accents these. Also we have tried to interpret our data against several frameworks in the professional literature: views of student teaching, teaching as a skill, and teaching as inquiry. The careful description and conceptualization of a case, we feel, has much to offer in such an analysis.

Appendix II

The Jigsaw Puzzle Analogy: the Analysis of the Field Notes

Introduction

Each time we have utilized participant observer methodology in the analysis of educational problems, nuances of the approach and fundamental problems of inquiry have arisen. As we have thought about our procedures and sampled the accounts of other field workers, we have been motivated to describe more explicitly just what we have done. Not that we have any great conviction that we are "right" about how to proceed, but more with concern for the barrenness of published accounts of the explicit procedures other workers have used in the steps between the decision to go into the field and the final report which is produced as the major outcome of their research efforts.

In this Appendix we present--with brief editing--a typescript from a tape recording of an hour and a half seminar presented by one of the authors to a group of students in the Graduate Institute of Education at Washington University. Our intent then--and now--was to demonstrate the process of "making sense" out of the field notes as one works toward a final report. As we have stated elsewhere[1] our general purpose was to describe an ongoing organization and then to abstract from the lay language to a more general conception. In this instance we are interested in "Models of the Apprenticeship in Teacher Education."

The Typescript: An Hour With the Seminar

OBS This morning I'd like to get involved in a topic that might be called "implementing the jigsaw puzzle analogy," in that I commented the other day that working with the field notes was like putting a jigsaw puzzle together for you have to shape the pieces as well as put the pieces into the puzzle. So if you will join in with me, I'll read a little bit of the notes and then I'll start to talk about them. As you have questions or as you have ideas that the notes seem to be saying to you I'll feed into them and we'll see if we can begin to make some sense out of what it means to work on a set of field notes. As I've indicated, these are Field Notes: Summary Observations and Interpretations. The project is 5-8204 which is the identification number that the U. S. Office Contract put on it. These happen to be ones that I dictated. I initialed them after that, and Bill Connor and Paul Kleine would initial their own so we could keep separate which is whose and who said what.

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[1] The reader is referred also to the first chapter and the appendix in Smith & Geoffrey (1968), to Chapter One and the appendix in Smith & Keith (1967), and finally to Smith (1967).

These notes I have not worked on to this point. I read them over last night quickly to see if it looked like there would be some things in there that might be interesting, so we are kind of going at it as I should have been doing six months ago, but I have been busy with some other things and we are, in effect, solving some of those problems.

It is Wednesday; this is September 29. It is fairly early in the season. The record starts this way. "I've just been at the Texas School," we've coded all of the schools in that we went by states, e.g., we had Texas and Alabama and so on. And God help us why we did that; it seems kind of stupid now. "watching Rebecca," who is one of the apprentices, "teach a penmanship lesson, a number lesson, and begin a reading lesson." Now that's the first sentence and it's one paragraph, a short paragraph, in the notes. And so you read that. "I've just been to the school"--presumably I'm dictating in the car as I am driving away from the Texas School. I've watched her teach this penmanship lesson, and number lesson, and begin a reading lesson. So, in effect, one of the kinds of things that comes to my mind as I try to recall the situation and build meaning here is that on this particular Wednesday she is doing a lot of teaching. She's involved in three different kinds of lessons and presumably in the morning--there ought to be a time on this where typically we will date these at 10:30 in the morning or 11:00 in the morning--and she's involved in the basic 3 R's kind of a program which raises some question about what sorts of things are being taught the children in this first grade class. These are the beginnings of the notions that are coming. I will have a set of field notes also of what actually happened in the class. These are afterwards. Any comments?

Student No, I just wondered--you said a first grade class and. . .in the notes?

OBS The next paragraph goes this way. "She has a group of the brightest of the first grade kids. It is supposedly the able group out of four." So one of the ideas you begin to get in this particular school--they are running a tracking system, in effect, in the early grade levels. They've pulled off the able kids and the less able kids and she happens to be in the brightest group. And it raises the question as to how the apprentice was picked to get into there. Later we'll want to ask the question--Do we have data as to how she got into that class as opposed to the other pupils? What kinds of special issues go on within the school?

"As I watched the lesson, I was struck by the fact that the kids seem to know most of the things that she was presenting to them." And presumably we'd have some other data on what cued that. And that raises the notion of the kids' knowledge of what the teacher was presenting to them. You might begin to ask the question of something like the difficulty (OBS is writing on blackboard) of the material. Now apparently these kids were working on a set of materials that looked to me, as an outsider, to be perhaps too easy. They knew it all already. Here is where we begin to "fiddle" with the data, as it were, in asking ourselves, What kinds of things should be the antecedents of this difficulty level? What went on that raised these particular materials that she utilized? And then you might ask the question, What happens when the difficulty with the material is not very high? And then you begin to speculate about them--and let me ask you a question from your own epxerience as you think about things like difficulty level at this point "As I watched the lesson I was struck by the fact that the kids seemed to know most of the things that she was presenting to them." If they know most of the things, can you take that specific, concrete piece of behavior and talk about a concept such as difficulty level? Is that a reasonable extrapolation from the operational to the more mildly abstract?

Student I want to ask you first whether it was probably a review lesson, was it not?

OBS The question that might be raised "Is it a review lesson?" which, in effect, precipitated this particular difficulty level--so far in the notes I have no data on that issue. That remains an open question at this point.

Student The fact that they are a high ability group may mean that though it may be difficult for them, that the difficulty level may not--it may be though it's easy for them, it may be difficult for the other classes.

OBS So you've got some kind of a concept of the abilities of kids, and in this sense this is the most able group. And you've got the possibility that what she was doing was preparing a pretty standard lesson for a pretty standard group, and as that merges with the ability level of the kids it comes out as not difficult, too easy. In that effect it may well yet be a review lesson that's being used.

Student This is early in the year. She still may be finding out what their abilities are.

OBS You have the idea of the whole situation (OBS writing on board), you might call it the situational context, and being essentially the early time of the year, as it were. And you might argue that a theory that's got to handle these kinds of data must build in some kind of a concept like situational context particularly relevant to the time of the year, and that that becomes a very critical kind of an idea and it interlocks with these other notions.

Student Well the fact that it is early in the year, and also that this is an apprentice teacher, it may be that the regular teacher has deliberately structured the thing easily so that she can get started nicely and not run into any big problems right off the bat.

OBS You have the further aspect of the relationship of the cooperating teacher (OBS writing on blackboard) and the apprentice and how that bears upon the selection or the use of this material. And at that point you may well want to argue that to get from here over to here (pointing to writing on blackboard) you need an idea such as the teacher's, and here the apprentice's, thought processes, or what we have called, on occasion, the decision making processes--that you get an influence out of this which bears upon this which then bears upon this. And you begin again to see the kinds of chain of potentially causal influences that bear upon where this difficulty level came from.

Student Before generating any of these, I'd want to know just what evidence you are using. You say that these children seem to know the answers. Well, was this a group chorale or were individual children called, and if so, how many of the children really knew the answer? Did they really know the work or was it just seemingly so?

OBS In this instance, and so far on the basis of these notes, there is none--I don't have any of what we tend to call "hard" data on that point. Now, to try to answer that question we would have to go back to the field notes that I took in situ, as it were, as the kids were behaving, and see if there are kinds of indicators--the fact that every time she asked a question, for instance, every kid gave immediately the correct response, and there were no misses. Could we pick up any comments of one kid talking to another "Oh, gee, we've had that before," and so on? Now those particular pieces of data we don't have here and we're running speculation to that degree at this point in time. But then it raises the kind of question that we were talking about on Tuesday of the degree to which the field notes proper have specific kinds of items reported. Now when we started out taking the notes, we weren't particularly interested in a concept like difficulty level of material and the teacher's presentation to the kids. And as we go back, then you raise the question of the concrete overt behavior of the children and any interpretive asides along the way. Does that tell you enough to know whether you are really dealing with this or not? Here again it argues for as complete a set of records as you can make, and it argues the point for taking a tape recording.

Student That was what I was going to ask. I wanted to know why you don't just take a tape recorder in if these field notes are so vital for their completeness.

OBS One of the problems is that there is a big data reduction problem in that field notes run on for miles and miles, and presumably if you had total tapings of classes, these would run on for miles and miles and it would be very difficult to run through all that or to listen to it. You can read more rapidly than you can listen. Now, in a new project[2] we are going to take a tape recorder in, I think. We're going to try it anyway to see what kinds of things we get. We have thought some of having a video tape in also to pick up the other nuances, and insofar as there is a good bit of lab work going on we may well need that to pick up the psychomotor dimensions of laboratory work as kids set up apparatus and as they drop it and break it and do all that kind of fun and nonsense. If we want to get a recording of that, we can't get it on a tape. We can get some from the field notes, but it would be better to have a video tape. In this setting it seemed to us that to be lugging this in and out of all of the classrooms was not as appropriate. I think if I had to do the problem with Geoffrey[3] over again we would have run a tape, for I was sitting there for so long a time. It argues for this kind of instrument here.

We've been on kind of the left-hand side of the causal sequence dealing with the antecedents. Any further comments about what ought to be happening over on the right-hand side? What happens if the difficulty level is low for the group? Speculations of what goes on in this kind of context?

Student You might have inattention, discipline problems.

(OBS writing on blackboard.)

OBS And you can raise the question of whether you mean these to be comparable concepts or whether they are different concepts, and then what kinds of indicators would you have to look for to pick up each of these kinds of things with the individual as well. Well, let me move along and you can again begin to see how the picture grows.

"Miss W., the cooperating teacher, commented that the apprentice had problems in control, and also had made a mistake with the letter 'j'," and again I'd have to look back. I think the comment was how she formed the letter "j". It was either not correct on the line, or so on, and again the specific isn't here. "She was surprised that the kids, and she mentioned a boy named Eric who was quite active and seems quite able, that they didn't raise a criticism and point out the mistake. For some reason I am struck by the emphasis on the _right way_ in doing things. While this has some obviously desirable aspects in terms of people basically printing in a manner that is legible to everyone and fits the common pattern of the culture, it also accents the homogeneity and the uniformity rather than the individuality. The consequences of building this in over a period of years seems most important." We are beginning to speculate now on another idea that is almost totally apart from this, although there will be some obvious interrelations perhaps. The earlier class comment about discipline and inattention is an outcome here.

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[2] The reference here is to Smith, L. M. & Brock, P., _Processes in teaching high school science: teacher plans, classroom interaction, and pupil activity_. (In process)

[3] Smith & Geoffrey (1965, 1968).

We're feeding right back into that notion where the cooperating teacher is telling us that this particular apprentice has that kind of difficulty. Now you can begin to raise the question--again it's a question or an hypothesis, not a principle or a proposition--of whether this kind of thing is in part some of the discipline and control problem that she is having. The other kind of idea is this business of what might be called, and again I don't have a concept for it now, I'll generate one or a label, on-the-right-way-of-doing-things. As that was dictated, it seemed important to me at the time I dictated. As I think about it now, it strikes me yet as kind of an interesting idea, the accent in the primary grades, or in this particular primary grade at this particular time if you want to be more accurate, that the cooperating teacher is talking about the right way of doing things as though the world were all black here and all white there. It's a right and wrong kind of a world. And so you begin to think about that kind of notion. You get up and you walk around and you go get a cup of coffee. You ask yourself "What the hell does that mean? What's really involved in this kind of thing? Is it really important? What sorts of things happen with it?"

Student It's surprising that she expected the children to know this so early in the term. You wonder did she have them the previous year. Are these completely new kids?

OBS So you begin to ask that kind of question and then that begins to raise questions of this kind--somebody commenting about either the time of the year or the review lessons and the need to start feeling out the kids. Somebody made that kind of comment earlier. And if the cooperating teacher has this kind of perception of the kids, then it raises some question with this tentative hypothesis that we were looking at before, that maybe she is trying to get to know the children. And then we've got to discriminate here between the cooperating teacher's getting to know the kids as opposed to the apprentice's getting to know the kids. Now this is Wednesday and they are in there on a "2 by 2." We'd have to check out definitely whether this is the first Wednesday or the second Wednesday. It sounds like the second Wednesday that she is in this particular class, so she's had the kids now for so many days and so on. So you begin to take this second piece or item of information and play it back upon some of the ideas that you have been working on before. And, immediately, as you see this, the number of combinations and permutations that arise--it's just an interesting kind of a problem of what fits where.

Student If she is teaching a right way of doing things and they go out of the classroom and they find that everybody else is doing the wrong way because it doesn't exactly fit what they are being taught--in fact the kindergarten teacher may have given them a different way depending on the consistency with which these are all done throughout the school system--or they go home and their folks are doing something very different.

OBS Okay. You've raised about six more ideas and one of them is the consistency in schools, and in here, the kindergarten, versus other teachers. And you are raising also the possible conflict at home, if it is done in other kinds of ways, and what that has to do with a variety of other kinds of things.

Student Well, I think basically this is the assumption the teacher is making that they are going to accept what she says is right and that if they didn't pick up the mistake the other teacher made, that she feels is a mistake, they may not be doing this. She's assuming, by saying she's surprised they didn't correct the other teacher, that they have accepted her way of doing this, and maybe they're not.

OBS Well, you've got another series of implications in here. One is that some part of the classroom equilibrium is the teacher's belief that the kids know and accept her way, which is kind of an interesting commentary on what she thinks about her class (OBS writing on blackboard) this early in the year. And it perhaps will tie back into the Geoffrey kind of thing[4] as if she's got everything all squared away. You know it's the 29th of September; they've been in school now three weeks more or less, and she's got a perception of what that equilibrium looks like and what kinds of things might be happening there. And then there's also another part of this equilibrium in that she has the expectation that they would critize, or correct perhaps is better, the apprentice--tell her what she is doing wrong. Now that, it seems to me, you've got her perception as that, and if her perception of the kids is accurate, that raises certain kinds of questions about further aspects of the equilibrium or the style in which she runs her class. And it conflicts a little bit with this emphasis on the right way and the wrong way, as it were, in that the kids are given opportunity, now, maybe it's a more moralistic kind of thing, where they critize regardless. It then raises some other kinds of questions about the kind of triadic relationship between the cooperating teacher, the apprentice and the kids. (Writing on board.) As the cooperating teacher do you support the kids' criticism of the apprentice's doing things wrong? Do you stifle that? What kinds of things go on here? What does that mean for the life of the apprentice who is in and out for a couple of weeks? What leads the teacher to think that kind of thing? And so forth.

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[4] The reference here is to an earlier meeting in which we talked of Geoffrey's technique in establishing an equilibrium involving classroom control and the beginning of the activity structure.

Student I wanted to suggest the dimension of the apprentices' conception of their own role and how all these things impinge on that. This was keyed off by the idea that the difficulty level might have been made low by the apprentice's own view of herself in that role. I'm just curious about how all these things act early on changes that might be going on inside the apprentice.

OBS You've raised what might be called the apprentice's, if we use one of McClelland's terms, the apprentice's schema or cognitive structure, her view of the world. (Writing on board.) And one piece of that is her role as apprentice and what that is initially, and then what it is when she is caught up with this particular cooperating teacher who has these beliefs that we have just been talking about here, and how that influences her, and then later how that influences certain kinds of materials she presents to the kids and so on and so forth. So that the puzzle, in effect, widens another step or two, and one keeps pushing again for the kinds of concepts that will handle a phenomenon like that. You can ask yourself, "Now is schema the best term for that? Is there a behavioristic reinforcement theory concept that will fit as well or better to handle that kind of phenomenon? Or is there a Freudian kind of concept that is an even better one than this?" And then you start generating into a host of fields as well. As you try to get a language system, in effect, you begin to talk about the kinds of things.

Student I wanted to ask about the cooperating teacher. Does she in fact grade or rate the apprentice? I think that would have a lot to do with the type of independence the apprentice would insist upon.

OBS In this particular system each cooperating teacher turns in an individual rating on the apprentice for the two weeks that she has the apprentice. The key rating though is made by the principal. He looks at all ratings and he can tear them all up and put her here, put her there or wherever he wants to.

Student Does he ever observe the apprentice?

OBS We'll come to that shortly. They do, in effect, so that you're beginning now to raise not only the cooperating teacher-apprentice-kids triad, but you're pushing it one step further in terms of where does the principal fit into the picture. And one part of the business of the totality is who makes the judgments, which, you might say, has overtones of something like power in that situation. Then you can begin to look at the bases of social power, if this happens to be a reward or of course a kind of phenomenon that is in the hands of somebody here and you begin to think about this "poor-little-old-apprentice" caught in a variety of networks as she gets socialized.

We've been working on that one paragraph for about half an hour so far, seemingly, in a very interesting and productive kind of fashion. Now to be parenthetical for a minute, typically what I do as I try to work on field notes is what we've been doing here. Then I begin to speculate and sometimes will cut and paste parts of the field notes. We have them typed in multiple copies so that we've got at least three carbons. We can cut a chunk out and put it in a folder here, or put it in a folder there. Or we might begin to write a brief essay on some of these ideas at this point in time and in which we'll later feed the materials. In effect, we're getting pieces that are beginning to get shaped. The total puzzle is, for me at this point, almost totally ambiguous. You don't know where in the devil this part is going to go with that part and so on. That, I might add, can be a very anxiety producing kind of event. Somehow it hits me as great fun. You've got them all out there and you operate on a basic assumption that there is order out in the world--if you take the realist position; if you take an alternative position, that even if there is chaos out there and everything is flux you can put an order in the world that is sensible, and it will jibe with particular words that are there in the field notes. And that, very seriously, is one of the most exciting parts of the whole business of this kind of work in that you never quite know where it is going to go, and you sit and you speculate and you keep going back to the notes to see if the fits are there or if they are not there, and you keep raising that kind of question.

Let me read on and then we'll hit a couple of other problems that we can speculate about a bit further. There was that last sentence. "The conseuqneces of building this in"--that there is a right way and a wrong way--"over a period of years seems most important." We haven't really dealt with that yet, and I think as I go back over these notes that is an idea I want to extend. "Miss W., the cooperating teacher, thinks that the control problem centers around the apprentice insisting upon things being done her way is the major issue in the apprenticeship." Now that is an awkward sentence, and I may have been running into another automobile when I was dictating that. Let's try to get some sense into it. "Miss W. thinks that the control problem centering around the apprentice insisting upon things being done her way is the major issue in the apprenticeship." As she sees it, most of them don't do this. From my observation, "if the apprentice is not that way yet, she is well on the way to becoming that way." Now I think what I meant here is that this cooperating teacher thinks that the control problem resides in the teacher's insisting upon things being done in a particular way and that the apprentice has to learn to insist on doing that. Now, we can begin to think about that as a problem in one particular cooperating teacher's bias about the way you handle the problem of "control." Now we need a definition of control, and I think I'd argue out of the work with Geoffrey that it is this simple directive-compliance type of interaction. She's arguing that what the apprentice has got to learn is to keep insisting that this is the way it is done--my way, in effect.

Student What is interesting just a small little bit--I so far have got no impression of the apprentice, but an impression of the master teacher is coming through very clearly.

OBS Well, this is one of the parts of the scheme. Now if you move toward a general idea like socialization of an individual into a profession (OBS writing on blackboard) or into a craft or into teaching, and you ask yourself what are the forces that are operating here, most people, I think, at first blush, would argue that the cooperating teacher is one of the major influences. What you're saying, in part, is that, at least in this particular set of notes, we're beginning to get a very vivid picture of a particular kind of cooperating teacher. And then we've got to have a way of conceptually handling what she is and what she does. One of the key concepts so far seems to be this idea of schema. She has ideas on how things ought to be done.

Student I'd like to come to her defense, if I could. What else can she do? If you have a first grade class who lets you put a "j" upside down, you have to tell them. . .and then if you have a cooperating teacher, an apprentice, coming in in September after you have had them for three weeks and she teaches them something that is in direct conflict, you have a problem; the children get confused. There has to be some sort of cooperation.

OBS Let me be most emphatic here that if I've sounded as though I'm critical of this cooperating teacher let me apologize and move back. In a sense, one of the things that we tried very hard not to do is to observe with a "holier-than-thou" attitude on either the cooperating teachers or apprentices or others. But it raises the kind of question in my mind that if we can sketch out what the state is of the cooperating teacher's schema, then we have the very interesting question not of judging whether that is good or bad, but asking ourselves: How did she get to be that way? What caused it? and then beyond that--What kinds of consequences come? We keep pushing toward a cause-effect kind of a model or antecedent-consequence kind of a model and not one of trying to evaluate. Now at some point in time we may want to make a particular value statement of two sorts. One, that diversity in human activities, in children's activities, is an important goal. I just believe that categorically, and I don't have any defense other than that is a basic tenent in my value system. At the same time I may have another basic value that in language we need commonality to facilitate communication. So I've got those two values and I want to put them on the problem of the letter "j" and in one sense you come out plus and in one sense you come out minus. And then you've got to begin to argue that point out. That's the intent of what we are engaging in now. Again, in the field notes, and let me not apologize here whatsoever, on occasion you do see things that you are either joyous about or that just shrivel your insides. Often we'll comment in the notes that way. This is one reason why we keep the notes as a private document, and even in the notes we try to code the people and so on. We want to put in at points where our biases seem to really be flowing into the episode, especially if we can detect them, so that later we can realize that, pull them out to whatever degree it is possible to pull them out, and count them. We had that kind of problem in the

Kensington research.[5] There were people there who made us mad as the very devil. There were people who looked two-faced and there were people who were this and that. Part of the reason that we had that feeling is that we would hear them talking one way at one point and another way at another point and we'd be the only common demominator in the situation. And it just came out black and white, just saying this here and that there. That kind of thing happens in the world and then again when we are trying to behave "like scientists," if these are scientific activities, we try to specify when we felt that way and how it might color some of the kinds of notes we took.

Student Well, if you are talking about the socialization of the teacher in the "2 by 2" system compared to a system say that City University has used, where one apprentice will stay with one cooperating teacher, at least the apprentice is getting a sample. I don't know how many she gets in this "2 by 2" system. (OBS--nine) Nine different, perhaps different, concepts of what teaching is as opposed to perhaps one.

OBS We're moving in that kind of direction as we talk about the latent dimensions of the "2 by 2's" in that you get nine shots, a whole variety of different views of teaching, different groups of children, different ways to relate and so on. And then the question comes as how varied are those nine different ones. Do they come out in a mold, so forth and so on? That kind of thing struck us, and if you put it in the paradigm of a psychological learning experiment--here you've got nine trials to reach some kind of criterion, if you know what the criterion is, which is another kind of issue, but you've got nine tries at it. We've got some explicit notes on that kind of phenomenon where I think it was Mr. Jennings was commenting on "Boy, I blew that two weeks and I'm going to do something different these next two weeks." And it sounds just like somebody who is involved in a maze learning experience. "Boy, I went down that cul-de-sac, and I'm not going to do that on the next try," and they get another try. Which is a very interesting different dimension to the socialization of somebody into the profession than say in the City University program.

Student Well, he's not only moving from one cooperating teacher to another with the new cooperating teacher's demands, but he's adding up what he has done.

OBS Yes, you don't have the kind of nice experiment in the sense that not only do you go on trial two, but the situation has changed in that you have had that experience. You have a new cooperating teacher. You've got to build the same kind of relationships that are going on here. You've got a new set of kids. You've got a new grade level. Consequently, you've never had the nice--oh who's the philosopher, Mills, who had the design where you try to vary one condition at a time, exclude that, and so on--you've got multiple stimuli coming in all the time.

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[5] The reference is to Social Psychological Aspects of School Building Design (Smith & Keith, 1967).

Student Just a matter of method pertaining to this thing, do they proceed from lower grades moving consecutively to the upper grades or do they skip around?

OBS That's another important aspect. Traditionally, they've gone 1, 2, 3, 4 through 8. Recently, and this was the year we were in, they shifted the procedure so that it's really not totally a "2 by 2" kind of thing. They spend 10 weeks in--they're in two schools--10 weeks they're in a lower s.e.s. school and the other 10 weeks they are in a middle-class school. And in this sense, they go kind of 1, 3, 5, and 7, skipping grades. And in the other school it goes 2, 4, 6, 8. Two weeks in each of these grades, but they skip grade levels.

Student And how do they get nine different shots out of eight grades?

OBS Kindergarten.

Student Oh, they do do kindergarten!

OBS They do kindergarten. So that we get confounding here, and that suggests again a whole series of interesting experimental designs that you can lattice in a whole variety of ways. It has some other advantages in terms of methodology. This again is part of the fun of the naturalistic setting, for if you are interested in doing experimental work with teacher training programs in socialization, and if you have this "2 by 2" kind of a model, you can structure when people go into what kinds of situations, and you can build in experimental approaches to systematically varying the kinds of experiences they get. You can have some kids going through the same classes with the same cooperating teachers and so on, and it would enable you to move experimentally rather than in the kind of naturalistic design that we used. Here you kind of take pot-luck, whatever comes you watch it and try to make sense out of it. Experimentally you get the power of the whole experimental design where you can randomize and do all the things that I guess you could talk about it all year. But again you kind of luck out. You see a whole host of other kinds of things that if you had six lives to lead you could get involved in.

Student Assuming that the teachers talk in the faculty lounge and there is a peer group established, and if this cooperating teacher ranks high within this peer group and her opinion has some merit, would it be possible for her opinion of this apprentice to influence the teachers that this apprentice might subsequently come in contact with, and, therefore, to a degree affect that particular apprentice teacher's schema and then her relationship, her future relationships, with the teachers that she comes in contact with?

OBS We've got a couple of beautiful items or pieces of data on that, one of them centering around this girl, the apprentice, that we've been talking about here, particularly as she went into her second school. There's some real interesting confounding. The second school that she was in was the first school that Miss Lawrence, who is another one of our apprentices, was in. Miss Lawrence turned out to be a gal who had, in our judgment, extreme talent for relating quickly to the children and producing interesting lessons that they got caught up in. We thought that she, upon entering her apprenticeship, taught better in terms of such variables as arousing pupil interest, development of concepts as opposed to rote information, and so on, than many of the cooperating teachers she worked with. But she also had a lot of savy that just didn't get rubbed into the cooperating teacher, and each of them progressively perceived her as being a gifted, natural teacher. Well, this occurred after about the first two rooms, and the teachers did talk in that building, and the ones who were to get Miss Lawrence were pleased about it and she came in with the carpet rolled out for her. We've got accounts of that happening as it developed. Whereas the other apprentice who followed her into that school, and she could have been a Biblical hero of some kind, and yet following Miss Lawrence would have been a tough job. The act was pretty good before. You come in as the second act and you don't have those strengths. Well, she had some real difficulties in the first couple of classes and the word was out. She's not so good. And progressively she had all kinds of difficulties in almost every class except for one where she hit it off very well with the cooperating teacher. But her life in that school was just a totally different kind of experience than the first girl's life in the school. So that another piece of the puzzle that, and I don't think it is in the notes here, is the item that you've got schools as another variable in this business as well as the particular set of cooperating teachers.

Let me skip in the notes right on into the kinds of things that are suggested. "I don't have much feeling for the total school as yet in the sense it may be difficult to get this, for the school is scattered over several locations." And there is some long discussion. "Miss W. was most emphatic about her beliefs regarding the 'stupidity' of the various portables." They had built portables around the school as they have done at a lot of schools. "They started out with single units on the west side of the school, built four of those, and then built a row of three and now built a seven unit section on the east side. Her feeling is that they should have added wings to the building. My guess is that this will give a very isolated quality to the various sections of the school." Here we're cooking an hypothesis. Here we are talking about the building's physical structure which in one sense you might argue has nothing to do with the problem that we went in with, but the teacher was all hot and bothered about it and kind of working on the principal. If they're hot and bothered about something, better get it down in the notes because it may come back to haunt you at a later date. "The primary wing probably sees a good bit of each other but not of the total school." And this next sentence again bears on the point we were making. "The principal stuck his head in for a moment and told Miss W. that they were taking the old piano out and a new one was coming in and he would appreciate it if she could pass the word on this." Now that was just something that happened. Again, as you are trying to kind of cover the map of things that seem to be going on, you obviously don't get everything, but as I look at that now it begins to raise in my mind the issue of what kind of principal is this and what kind of a relationship does he have with his staff if he kind of sticks his head in the door and tells them that they are going to haul out the piano and there will be a new piano coming in. What kind of principal would do that? What's the implications of that for the way he runs his building? Well, there's no further comment about that; it's just stuck there in the notes.

The next paragraph. "It is now 10:35 and I've just left the Alabama School. It was a very short but productive visit." And again that's kind of an interpretive evaluative comment as we've generated all this kind of data. That's the second visit, so I've been to two schools in two hours which is moving pretty fast in terms of what you see. "It's been a very short but productive visit." I'm talking about the second school at that point in time. And then the paragraph goes this way. "Among other things, I learned that the principal is a 'stickler' in the words of the cooperating teacher, Miss G." So Miss G. is now telling this in the second school about her principal and this is quite in contrast to the kind of busting in and so forth. "She was unhappy that I hadn't called in and made an appointment as to when I was coming. This interfered with her schedule and she was fearful that we would both be in the classroom at the same time." So this principal had expected me to call in and make an appointment before I came in to be with the classroom, and we were running into some difficulties here. And the notes go on "Without realizing that she was concerned I had initiated a conversation about 'the principal working' and attempted to enter into some banter with her." She'd been in and out of the classes, you know--I'm going to be working hard this morning. You know this kind of thing, a little breezy but light and easy and so forth. "This was a real bomb. She takes her principal duties very seriously and this again is one of the important things to know about the supervision of apprentices. She had spent an hour in the classroom and written a detailed one and a half page set of notes about the lesson. She had some very specific suggestions to make, some of which were encouraging and some of which were critical and needed correction on the apprentice's part. For instance, she had described quite vividly an episode in which a boy by the name of Joe brought his turtle and the apprentice had proceeded to show the turtle rather than let the boy show the turtle. The principal indicated that the little boy followed her around feeling quite lost and yet possessive of his turtle, and he, in effect, was ignored by the apprentice." So again you begin to get a whole series of questions, mundane sorts of things, and you can see a poor little kid falling to pieces with telling about his turtle. "Similarly, she commented about needing to keep an eye on other kinds of things that were happening in the room while she was teaching the one group." Apparently they were teaching multiple groups and activities at that time. And we go on in the notes "This is in general the 'being on top of it' phenomenon which we've had in the Kensington School notes which seems to be an important concept." Now again you can begin to see the feedback from one project to another as we keep contrasting and comparing and so on. Well, this "being on top of it" notion is one that we've been toying with that we are trying to define--that it's a relationship of the teacher to the classroom as a whole where the teacher seems to be aware of what's going on and seems to be in tune with the process and seems to be, and we have all kinds of analogies and metaphors, as it were, riding the situation very well. You have an image of someone riding a bucking bronco kind of thing and if you're on top of it, well you're in rhythm with it; if you're not, you're bounding off and so on. This particular incident of keeping an eye on all the things that are going on struck us as an important notion that we can begin to generate much as we have here. And we go on and try to define it--"It is an attentive readiness to respond to orientation where your eyes are continually darting here and yonder as you are picking up views about the way the group is going and what is happening at various spots. My guess is that the kids soon read this as somebody who knows what's going on and somebody with whom they've got to contend in a way quite different than someone who is very constricted in his vision and seems to be seeing little of what's going on." So you can see our beginning speculation, and out of this I would hope we would ultimately construct a piece of the jigsaw puzzle about this particular dimension of teacher-pupil interaction. What the antecedents are, you know, how do you get people who are aware of what's going on, who are on top of it, and who can do this kind of thing. What the consequences are--what do the kids come to see, the sort of thing they might say, "She knows what's going on; I can't move here; I can't do that," or whatever. And you can again see how you can start to build this kind of a set of pictures if you like or diagrams of what causes what and so on--in effect, beginning to build a miniature theory or model of this phase of classroom interaction.

Let me read one more quick paragraph and then divert off on something else, because this raises another methodological point that I think is very critical. "The reading lesson was soon over after I arrived" so I caught it kind of halfway along the way. And, incidentally, let me be parenthetical. Typically in this study we tried to go in and set up the relationships, and obviously we didn't do it very well with this principal, that we could come and go at any time. We wanted to catch the apprentices in whatever they were doing at the moment without special preparation for us. And I'm not quite sure, we haven't argued that part of the methodology out, I think that there's an important idea in that. But the reading lesson was soon over after I arrived "and most of my visit was spent listening to the cooperating teacher talk to the apprentice about what was happening. In effect, she seemed to be trying to say most of the same things the principal said but saying them in a softer, more generous and more understanding manner and taking the time to listen to the reasons as to why the apprentice might have done what she did." So here we are getting kind of an interesting view of another cooperating teacher in the apprentice context. "For instance, regarding the turtle, one reason that the apprentice had taken the turtle and passed it around was the fact that the kid was holding the turtle upside down in what anthropomorphically might be described as a very uncomfortable position. Other aspects occurred in terms of following up lesson plans and raising questions about what might be done." The methodological point I want to make here, and we haven't really elaborated this one yet, seems to me to be one of the most important dimensions of the participant observation methodology. It centers on this. For instance, if you are studying some of the problems in teaching, whether it be teacher attitudes or teacher-pupil relationships or staff relationships, and, on the one hand, you see the person teach (OBS writing on blackboard) you've got a certain kind of bare bones of what the world is like by watching what they do with the kids, and you can write about it, you can think about it, you can act on it and so on. Secondly, you talk to the apprentice, or, in the other studies, with the teacher, and you, in effect, hear his side of the story. It may be a tale of woe; it may be this; it may be that; it may be a dozen kinds of things. There is an interesting dimension of this; with some of the people you turn out to be a father confessor and you're out of the authority structure--you're not going to grade them, you're not being critical, you're just "tell me kind of what went on," this and that, and you play this out in a very honest way--I'm sounding flippant on that and I don't mean to be. You really try to climb inside the person's head and his guts, as it were, and see and feel and understand what the world was like to him. And typically these apprentices, and we found in almost every other situation the teachers and administrators, will open up and will talk to you because on the one hand you don't have any authority over them, on the second hand you are doing you best to understand the predicaments of their lives, whether it is a good predicament or a bad predicament on some other grounds and so on, and most of them will talk with you at great length. You tend to then have their whole view of the situation which you can then play back against what you saw then as they actually worked. You have long notes on this kind of thing as well, and there often might be inconsistencies and that poses other kinds of questions in the puzzle. The third kind of thing that you get is that you observe them, in effect, talking with each other. Now the each other is, in this instance, the cooperating teacher was talking with the student teacher, the apprentice. And, in effect, I sat and listened in on that conversation. That often has dimensions that are different than when you see them teach or when you talk to them outside of the teacher context, and particularly where they don't get along with the cooperating teacher, which happens on occasion. They will tell you all kinds of interesting and sometimes nasty things about the cooperating teacher and the way the teachers do things that the apprentices don't like. Finally, you also get to see them talking with each other, so that, in effect, you are beginning to get different views of the reality. You get a fourth kind of notion in that you, in effect, talk with several people, and in this sense, and these notes contained it very well I think, we had that conversation with the principal. On occasion we talked privately with the cooperating teachers. You keep getting a whole series of different viewpoints that you play against each other and the argument about the potency of this kind of notion rests for me. We've done a lot of questionnaire kind of research and some of it I think quite productive, but you always face the problem of the validity of the questionnaires. What do they mean when they jot down x, y, or z, or a, b, c, d, e, and so on? We've done the variety of the MTAI kind of work. What bearing does this have upon what they do, how they see the world, and so on? One of the critical kinds of important pieces here is that you get not only these kinds of indicators, but you get these other kinds of indicators. You might argue as a fifth kind of point that you always have the context present in these and you know what was going on at the moment in the world, e.g., you know the turtle was upside down kind of thing that you would never get in a more generalized kind of questionnaire.

Student Is there an interaction between the apprentice teachers themselves, kind of a normative structure where they learn to play the games.

OBS Yes and no. This particular situation, I think, is different from the kind of thing Larry Iannaccone found with some of his student teachers. There is another dimension of the formal program in that area. Our apprentices are in the school solidly four days a week, Monday, Tuesday, Wednesday, Thursday from before school until school is out. They are not on campus at all. On Friday they have a couple of classes and they do go on campus, but what, in effect, happens is that there is very restricted interaction among them, whereas City University elementary student teachers typically spend four mornings and one afternoon and that afternoon has to be with one of the mornings in the school. Consequently, they're around campus a good bit of the time while they are doing their student teaching. There is a bigger system that develops here than in the Teachers College kind of context. One of the other kind of things that we implemented was a Friday meeting with our people. Each of us had four apprentices, and we would sit and have a short bull session. Part of the reason here was to get at this kind of phenomenon. I wanted to see how each of the four would talk about his experiences, some of which I'd seen, with the other people. How would they phrase it? Would they cloak it this way or cloak it that way; would they soften this; would they sharpen that,and so on? Typically, they were so busy that they didn't have a lot of college peer group interaction. They got built into their public schools to a very high degree. The kind of data for that kind of thing occurs in that Miss Lawrence was in her first school the first nine weeks. At the end of the semester they had a very annual faculty dinner party. Several of the teachers went out of the way to invite her back to that. She had been out of the school now six or eight weeks; they wanted her to come back. They wanted her to be a teacher in their building next year. So the point I'm making is that when the situation "went well," the apprentice got built into that system to a very high degree and here you get back on the socialization business of the degree of involvement--clock hours. They spend many more clock hours in the school than City University kids do. The methodological point is that as you gather these kinds of data and try to play them one against the other and the ground rules for how you play them against each other, at least in my eyes so far, are not much more sophisticated than what we've been doing this morning where you kind of take one piece and add a piece and so on, we think is a very, very important dimension here. That even though we can't put numbers to most of what we've got and it comes out as description and analysis, the validity in what we are dealing with, we think, has some advantages over the validity of some of these other ways of approaching educational problems.

Student I notice that you don't mention the coursework methodology of foundation courses as a possible variable.

OBS We've got some information from talking with the apprentices about what they have had by way of course work and so on. We were in a sense not studying that prior part of the program. We've got a variety of data on that, mostly heresay kind of things.

Student They don't take their coursework while they are doing student teaching?

OBS They have a course in classroom management at the same time but they're totally tied up with the apprenticeship. The apprenticeship may be an apt choice of words there as opposed to student teaching, because they are apprenticing in a craft in that sense to a very high degree.

There are pieces of the formal structure of the program that we've got some data on programs, schedules and so on that we're trying to build into that. We don't have good data on what goes on before, what happens afterwards. The anti-climactic effects, for instance, for the people who apprenticed in the fall coming back for another semester of listening to college professors telling them about classroom teaching.

Student Well, I was thinking specifically in connection with that first information where how they view the teaching of slum children which is hard, rigorous, which is so much against much of the classroom teaching, the campus type teaching you receive on how to teach these children.

OBS We've got comments about the unreality of their program which are like the comments you get about the unreality of our program. We've got a lot of that data. I'm sketchy here because I haven't really pushed into that at this point and I don't know really what lies in all the notes we have taken. One of the other aspects of this business is that you forget when you take that material in strong and heavy at the time and then you have to go back to it, you have forgotten things that you have put in. That's kind of a revelation too, in that you keep running into things. "My God, did we see that then." And there it is, black and white as it were. We've typically behaved in the fashion that you don't go back and read your notes along the way. Now Becker and some of the other people argue that you are continually reading them, checking them out and so on. We haven't thought that one through totally yet. There are a whole series of methodological papers that we are trying to get written as we go along about issues like this where there are no good rules on it. You know there is no easy right and wrong way. I keep asking sociology and anthropology friends and graduate students that I contact, "Well, now what does the British School of Social Anthropology, the London school, say on how you do that?" A student who took an M.A. with them commented, "They just do it." I can't get the black and white this, this, this, and this. Now Howard Becker is one of the key people who talks about how to do the methodology and he argues that you keep revising and so on. Our feeling is to immerse oneself in the trivia and the what-have-you and get it down as much as you can. Don't go back at the time and then later sit down and see what that world really looks like when you've got your set of notes.

That could get us off in another long conversation, so we might as well finish here.

Conclusion

In this seminar presentation we have carried on the process of struggling with the analysis of field notes. In one and a half hour's time we have raised a number of the difficult problems in blending speculation with reported incidents. Our students raised questions and issues which sent us off in relevant directions we might not have gone by ourselves. Typically, the activity of analysis is carried out in the privacy of one's study. The painfully slow process has always taken longer than we have anticipated. The fruits of the efforts lie in the careful descriptive accounts of the program or organization in action and the social science theory that is generated to interpret meaningfully the experience. Elsewhere we have commented on the flow of research styles in a programmatic approach to understanding educational problems.

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BACKGROUND

The dynamics of education in a period of unparalleled ferment are complex and difficult to grasp in their entirety. Amidst the range of critics raising charges and counter charges, the self-proclaimed messiahs with dramatic new alternatives, the rush to take advantage of the wide-ranging federal programs and funds, the plethora of new curriculum materials being developed by national committees, and the pressures to use new organizational patterns and technologies, the day-to-day teaching in self-contained classrooms laboriously and inexorably grinds along in traditional fashion and receives scant attention. Consequently, amongst all the attention being paid to problems of change, innovation and reform it appears worthwhile to take time to observe carefully some of the current,mundane, day-to-day practices and procedures in professional education and to think critically about the implications of these programs.

OBJECTIVE

The research was undertaken with the objective of gaining a preliminary understanding of some of the different kinds of consequences that occur in the education of teachers as a result of different patterns in the organization of the student teaching experience. The present report is an effort to describe carefully an ongoing pattern and to develop models of its functioning.

PROCEDURE

Theoretically, the study may be viewed as a problem in functional analysis. Our attempt has been to take Merton's (1957) general position and utilize it in the study of this important educational problem.

". . .just as the same item may have multiple functions, so may the same function be diversely fulfilled by alternative items. . .there is a range of variation in the structures which fulfill the function in question . . .[This is] the concept of functional alternatives, equivalents or substitutes." (1957, pp. 33-34)

Our approach utilized the methodology known as participant observation, or the anthropological field study approach. Malinowski's "Introduction" to the Argonauts of the Western Pacific (1922), Whyte's supplement to Street Corner Society (1955), Becker's "Inference and Proof in Participant Observation," Am. Soc. Rev. (1958), illustrate the general literature. In particular, each student teacher prepared a field notebook in which he briefly recorded each day's activities along with any reactions to the various situations in which he found himself. The requirement for the notebooks were 1) at least one page per day, 2) an account of the most important thing they learned, 3) the most interesting event of the day, and 4) the most puzzling event of the day. These learnings and events pertained to any phase of the experience--with the curriculum, children, staff, community, and so forth. The participant observers kept a field notebook of observations and focused interviews with individuals and groups of student teachers and cooperating teachers. The investigators observed and interviewed each of the teacher trainees at least once in each of the classroom settings. In the observing, no attempt at quantification was sought; rather, notes were made to sharpen questions for interviews and for analyzing the logs and to provide a basis for careful description and interpretation.

We worked with 12 apprentices selected by the supervisor in charge of apprentices at City Teachers College. The basic criteria agreed upon were as follows: (1) there should be both male and female apprentices; (2) there should be both male and female Negro and white apprentices; (3) each of the elementary districts should be included; (4) both middle and lower socio-economic schools should be included; (5) a minimum number of schools should be used; and (6) variations in expected competence should occur. We had contact with six of the schools for a period of ten weeks and nine of the schools for the full twenty-week period. Each of the several elementary districts were represented; middle and lower socio-economic schools were represented. The distribution of apprentices was as follows: male Negro--2; female Negro--3; male white--2; female white--5. The twelve apprentices appear to represent a reliable cross-section of the total student teaching group regarding ability, marital status, age, and presence or absence of outside employment.

The principal investigators and a graduate research assistant (Paul Kleine) spent twenty weeks during a fall semester observing the twelve apprentice teachers (four each) in fifteen elementary schools (K-8). Something over two-hundred visits were made to observe the apprentices teach and to have interviews with them, the principals, and cooperating teachers.

In short, our aspirations have been to provide a careful description of an approach to training teachers. We have not sought to "evaluate" the program in the more limited sense of that term. Our interpretations have been of the order of bringing several perspectives to bear on the hard data generated by our observations.

CONCLUSIONS AND IMPLICATIONS

In a study of this type it is rather difficult to enumerate specific and precise results or conclusions. The whole effort is our attempt to find ways of thinking about what we have seen and recorded. The structure of the report suggests the type of effort we have made.

The results of the study have been organized into four sections and nine chapters. Chapter One states briefly the nature and approach to the problem. Chapters Two, Three and Four comprise Unit Two, "The apprenticeship program at City Teachers College." The materials are heavily descriptive. Chapter Two indicates that, to a degree, most everyone included in the apprenticeship program was aware of the formal doctrine. However, the apprentices frequently felt cooperating teachers were not as clear about this as they should be. Formal structure in the system tends to maximize the power of the principal and the cooperating teacher vis-á-vis the supervisor.

Chapter Three deals with a number of the latent dimensions of the apprenticeship experience as related organizational aspects of the classroom, the cooperating teacher, children as socializing agents, apprentice personality and behavior, and the informal structure of the school.

Chapter Four deals with some of the learning outcomes of the individual apprentices and is an attempt to specify a number of "core interpersonal capacities and skills in teaching." This seems to us to be one of the most important problems in the contemporary analysis of teaching.

Chapter Five deals with some of the literature concerning views on teacher training. Some broad general positions such as Conant, Koerner and the AACTE proposal are examined. The specific analytical positions of Sarason and Shaplin are looked at and a descriptive account by Iannaccone and Button (Coop. Research Project No. 1026) is discussed. Perhaps the most general conclusion from this brief review of the contextual literature is substantial agreement that the teacher-to-be must experience an intensive period of practice or apprenticeship with a skilled and artistic teacher.

Chapters Seven and Eight attempt to develop two models of teaching: I. teaching as inquiry; and II. the psychomotor analogy. Some implications and conclusions of the inquiry model are as follows.

In a case study, such as ours, the difficult problem of sorting out cause-effect relationships occurs. As we tried, the hypotheses we created appear in issues underlying the inquiry model. The broader teacher training program of which the apprentices are a part, the formal doctrine of the apprentice experience, the mode of supervision and the "2 x 2" program itself seem to limit this development. Latently though, the fundamental importance of general intelligence, the ability to think abstractly, may well put limits on the degree to which conceptualizing is done and is experienced as pleasurable versus frustrating. Also the problem of stages in a career seems an important and relatively unanalyzed problem in teacher-training--and in occupational socialization more generally.

If teaching is increasingly to approximate such an "ideal" model as that of a profession the teacher must possess a knowledge of basic and relevant sciences, must be skilled in their application in the classroom, must accept responsibility to and have control over the application of a code of ethics to the profession, and must accept responsibility for the conduct of teaching in the best interests of his pupils. All teaching in the schools takes place within an institutionalized setting and so cooperative relationships must be established. These relationships in a large organization tend to become formalized, and bureaucratic structures result. The problem then becomes how to resolve the conflicts between the demands of the organization and responsible professionals who function within its confines.

The psychomotor model and its relation to the inquiry model is stated in the following.

At very high levels of performance, psychomotor skills become highly individualized. Even the casual observer of batting styles notes the variations among professional ball players. At some point in time--undetermined at present--coaches stop molding players to a standard criterion and accent the player's own individuality. Bruner (1961) has generalized this from a range of performing arts to the practice of teaching.

The issue of style integrates into broader conceptions of the role of teacher within the life of the individual.

To this point most of our analysis of psychomotor skills has been at the motoric end of the continuum. However, skills, especially those implemented in a social context as games or contests, reach their culmination in strategies--conceptualizations and inquiry into the process. The strategy of play--often of coaching--returns us to the cognitive elements within a skill. The quarterback or coach who senses weaknesses and possibilities, who sees recurring patterns of defense and implements a "game plan," puts his intelligence to work in solving problems. It is at this point that our earlier model, teaching as inquiry, seems to blend most productively with our second model, the psychomotor analogy. Further development of this relationship seems of high priority.

Chapter Eight deals with some of the problems in occupational socialization in a comparative context and suggests the task yet to be accomplished in looking toward the improvement of teacher education.

Our last chapter has included a few summary comments on our understanding of the way in which a functional analysis might proceed. Our methodology, participant observation, continues to enthrall us. A very important aspect of that excitement centers on the development of new problems. We called these "lingering issues" for they are problems that have been a part of our life space for some time, that intruded into our present analysis, that have not received the attention they deserve and that one day we will get to. For the moment, the longer career view or life span context for those analyzing instruction and the socialization of teachers into classrooms, schools and the profession seems most important. Many of the current arguments about teaching and teacher education seem to be bound up with assumptions which such a life span overview makes clear and vivid. The issues of racial and economic transition which are so much a part of the urban scene, and out of the perspective of the educational psychologist and the teacher trainer, must be brought into focus. While most of our comments have arisen in a long conversation with a single principal, our data contain many more references. The issues are of major magnitude. Finally, we raise issues of "role theory" as a further and important model for the analysis of teaching and the apprenticeship.

BIBLIOGRAPHY

There are 72 references listed in the final report.

PUBLICATIONS

None.